

Tivoli Common Reporting

*User Guide*





Tivoli Common Reporting

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**Note**

Before using this information and the product it supports, read the information in Notices.

**Second edition**

This edition applies to Tivoli Common Reporting and to all subsequent releases and modifications until otherwise indicated in new editions.

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# Contents

## Chapter 1. Overview . . . . . 1

Technical overview . . . . .	1
Web resources . . . . .	4
Getting started with reports . . . . .	5
Logging in to the reporting interface . . . . .	6
Single sign-on (SSO) . . . . .	7

## Chapter 2. Installing . . . . . 9

Hardware and software requirements . . . . .	9
Installation scenarios and installation modes . . . . .	11
Tivoli Common Reporting installation paths . . . . .	13
Preparing to install . . . . .	14
Preinstallation Step 1: Read the release notes . . . . .	14
Preinstallation Step 2: Verify the environment . . . . .	14
Preinstallation Step 3: Preparing installation media . . . . .	16
Validation of additional disk space required for the installation process . . . . .	16
Installing using the installation wizard . . . . .	17
Installing on one computer . . . . .	17
Installing in a distributed environment . . . . .	18
Installing the Cognos-based Tivoli Common Reporting engine . . . . .	19
Installing Tivoli Common Reporting user interface . . . . .	19
Installing by using the console mode . . . . .	20
Installing using the silent mode . . . . .	21
Response file for silent installation. . . . .	23
Installing into an existing Cognos infrastructure . . . . .	33
Installing Tivoli Common Reporting into an existing Tivoli Integrated Portal instance . . . . .	34
Installing Framework Manager . . . . .	34
Verifying the installation . . . . .	35
Post-installation tasks . . . . .	35
Migrating to a distributed environment . . . . .	35
Exporting data from Tivoli Common Reporting . . . . .	35
Modifying the existing single-computer installation . . . . .	36
Importing data . . . . .	39
Changing ports for the Tivoli Common Reporting console . . . . .	39
Enabling Cognos Application Firewall . . . . .	40
Uninstalling . . . . .	40
Uninstalling using the uninstallation wizard . . . . .	40
Uninstalling using the console mode . . . . .	41
Uninstalling using the silent mode. . . . .	41
Uninstalling manually . . . . .	42
Verifying the uninstallation . . . . .	44

## Chapter 3. Upgrading to Tivoli Common Reporting version 2.1.1 . . . . . 45

Preparing to upgrade . . . . .	45
Upgrading on a single computer . . . . .	46
Upgrading distributed environment . . . . .	48

Upgrading Tivoli Common Reporting engine . . . . .	50
Upgrading Tivoli Common Reporting user interface . . . . .	50
Upgrading with the use of a package. . . . .	51
Upgrading using a package in single-computer scenario . . . . .	51
Upgrading with the use of a package in distributed scenario. . . . .	54
Upgrading the reporting engine using a package . . . . .	55
Upgrading user interface using a package . . . . .	56
Upgrading with external Cognos . . . . .	57
Upgrading across scenarios . . . . .	58
Exporting data from Tivoli Common Reporting . . . . .	58
Migrating to a distributed environment . . . . .	59
Exporting data from previous instances manually . . . . .	59

## Chapter 4. Configuring . . . . . 61

Configuring LDAP or Microsoft Active Directory . . . . .	61
Configuring Tivoli Common Reporting Server . . . . .	62
Configuring Cognos-based Tivoli Common Reporting engine . . . . .	63
Configuring Tivoli Common Reporting for Tivoli Integrated Portal future upgrade . . . . .	64
Configuring Tivoli Common Reporting for future upgrade of Tivoli Integrated Portal . . . . .	64
Migrating data to Tivoli Common Reporting installed on a higher Tivoli Integrated Portal version . . . . .	65
Configuring Tivoli Common Reporting 2.1.1 to use Cognos installed on a separate computer . . . . .	66
Exporting data from Tivoli Common Reporting . . . . .	67
Enabling Tivoli Common Reporting to use external Cognos . . . . .	67
Configuring clustered environment . . . . .	69
Configuring distributed installation for load balancing . . . . .	70
Load balancing . . . . .	72
Monitoring a load balancing cluster . . . . .	74
Configuring the reporting engine for load balancing . . . . .	75
Configuring user interface for load balancing . . . . .	77
Configuring IBM HTTP Server . . . . .	78
Configuring Framework Manager connection . . . . .	81
Configuring database connection . . . . .	82
Connecting to a DB2 database . . . . .	82
Connecting to an MS SQL database . . . . .	83
Connecting to an Oracle database . . . . .	84
Enabling Federal Information Processing Standard . . . . .	85
Enabling FIPS . . . . .	86
Configuring security permissions . . . . .	88
Constraining access to BIRT reports . . . . .	89
ODBCINI variable configuration . . . . .	89
Configuring portlet functions . . . . .	90
Tivoli Integrated Portal configuration. . . . .	90

## Chapter 5. Common Reporting . . . . 91

BIRT reports in Cognos . . . . .	91
BIRT reports in Cognos - overview . . . . .	91
Running BIRT reports . . . . .	92
Saving a BIRT report . . . . .	93
Creating a Report View of a BIRT report. . . . .	93
Scheduling reports . . . . .	94
Importing BIRT reports . . . . .	94
Retrieving the User Name from within a BIRT Report . . . . .	94
Converting BIRT reports to Cognos reports. . . . .	94
Known limitations . . . . .	97
Administering BIRT reports . . . . .	97
Setting up JDBC data sources . . . . .	97
Known limitations . . . . .	98
Working with reports . . . . .	99
Running the sample overview report . . . . .	99
Sample overview report . . . . .	100
Importing report packages . . . . .	101
Exporting Cognos report packages . . . . .	101
Copying report images to the Tivoli Common Reporting server . . . . .	101
E-mailing reports . . . . .	102
Scheduling reports . . . . .	102
Performing ad-hoc reporting . . . . .	102
Web-based report authoring . . . . .	103
Search path . . . . .	103
Checking the search path of a report . . . . .	105

## Chapter 6. Troubleshooting and support . . . . . 107

Using log files for troubleshooting . . . . .	107
Enabling detailed log and trace information . . . . .	107
Troubleshooting the installation . . . . .	108
Tivoli Common Reporting does not install after upgrading and uninstallation . . . . .	108
Installation fails because the Deployment Engine fails to initialize . . . . .	108
Non-root installation fails . . . . .	109
After upgrading from Tivoli Common Reporting 1.3, the reporting engine does not work . . . . .	110
Installation using the install.sh script fails . . . . .	111
Installation fails on a system with Turkish locale . . . . .	111
The Work with reports panel displays an error . . . . .	111
Cognos Business Intelligence does not install on Windows 2008 64-bits R2 . . . . .	111
Cognos Business Intelligence does not install on Linux . . . . .	112
UDA-SQL-0031 Unable to access database: QE-DEF-0285 Logon failure. . . . .	112
Uninstalling the Deployment Engine to complete Tivoli Common Reporting manual uninstallation . . . . .	112
Troubleshooting Common Reporting . . . . .	114
Browsing images does not work in Report Studio . . . . .	114
Your login session expires while working with the Common Reporting portlet . . . . .	114

ODBC System DSN connections fail to test from the Tivoli Common Reporting server . . . . .	114
When starting Framework Manager you are prompted to supply your login details twice . . . . .	115
Drill-through definitions in BIRT reports do not work . . . . .	115
The <b>Work with reports</b> window is blank . . . . .	116
An error UDA-SQL-0569 appears while starting Cognos server . . . . .	116
An error occurs when starting Framework Manager . . . . .	116
Logon fails in Turkish locale . . . . .	117
Error QE-DEF-0368: Unable to decrypt user name and password credentials from the content store. . . . .	117
Unable to locate <b>libcoguardor</b> on Linux with Oracle . . . . .	118
Oracle environment variables for non-Oracle default user . . . . .	118
No content displayed in Common Reporting portlet in Internet Explorer 7 . . . . .	118
Charts in reports do not appear . . . . .	119
Cognos Configuration does not open . . . . .	120
Cannot open the sample overview report . . . . .	120
Error after running a sample overview report . . . . .	120
When trying to find users in user repository, an error appears . . . . .	121
Connection with the datasource fails . . . . .	121
Cannot save IBM Cognos Configuration settings . . . . .	121
The reporting engine fails to start with the SQLCODE=286 and SQLSTATE=42727 . . . . .	122
Report Studio does not work with Internet Explorer 8 . . . . .	122
Reports in PDF format hang . . . . .	123
Tivoli Common Reporting interface hangs. . . . .	123

## Chapter 7. Reference . . . . . 125

Commands . . . . .	125
Command-line authentication . . . . .	126
trcmd -access . . . . .	126
trcmd -convert . . . . .	127
trcmd -datasource . . . . .	129
trcmd -delete . . . . .	131
trcmd -distribute . . . . .	132
trcmd -import . . . . .	133
trcmd -list . . . . .	134
trcmd -modify . . . . .	136
trcmd -run . . . . .	138
trcmd -version . . . . .	139

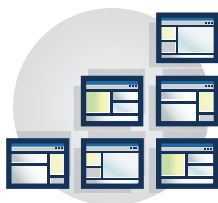
## Notices . . . . . 141

Trademarks . . . . .	142
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## Index . . . . . 143

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## Chapter 1. Overview



Tivoli® Common Reporting provides an integrated reporting solution for the products in the Tivoli portfolio. You can link multiple reports across various Tivoli products to simplify the report navigation and accelerate access to key reporting information.

Tivoli Common Reporting provides the following advantages for the users:

### **Simplified interaction**

Simplified interfaces and interactions for report writers to create, customize, and publish reports which let you build reports faster and easier.

### **Cross-product report linking**

Extend the capability of cross-product report linkage for seamless flow between related reports of various Tivoli products.

### **On demand reporting**

Enable report users to create and save ad hoc reports, without the need for professional report writer's involvement.

Tivoli Common Reporting 2.1.1 is based on Cognos® 8 Business Intelligence Reporting version 8.4.1, Fix Pack 3. The following Cognos components are available with Tivoli Common Reporting:

- Framework Manager - a modeling tool that allows you to create data models.
- Query Studio - a reporting tool for creating simple queries and reports
- Report Studio - a web-based tool for creating sophisticated reports against multiple databases
- Cognos Connection - an application where you can see all your report and manage them

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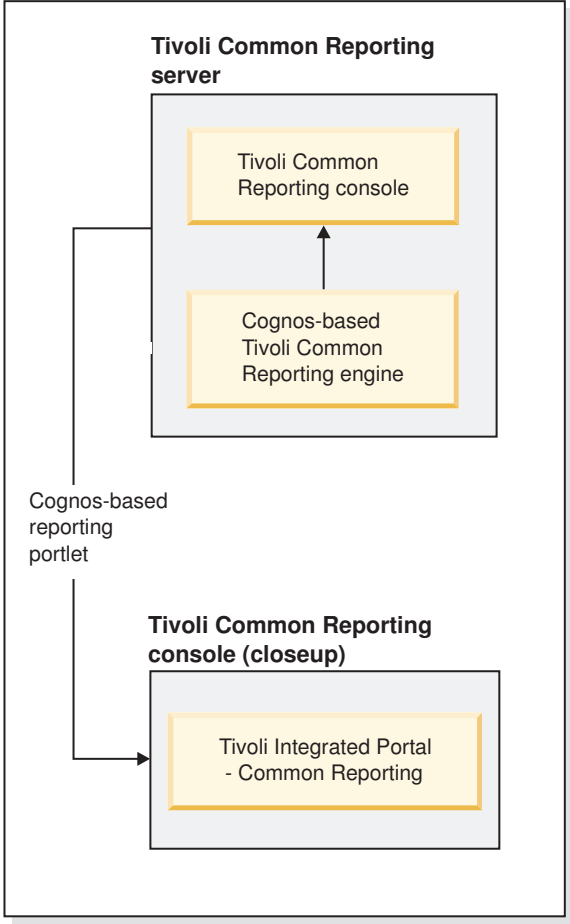
## Technical overview

IBM® Tivoli Common Reporting consists of data stores, reporting engines, their corresponding web user interfaces displayed in Tivoli Integrated Portal, and a command-line interface.

Tivoli Common Reporting provides a flexible structure that can be adapted for load balancing. The following diagrams illustrate the possible distributions of the product components:

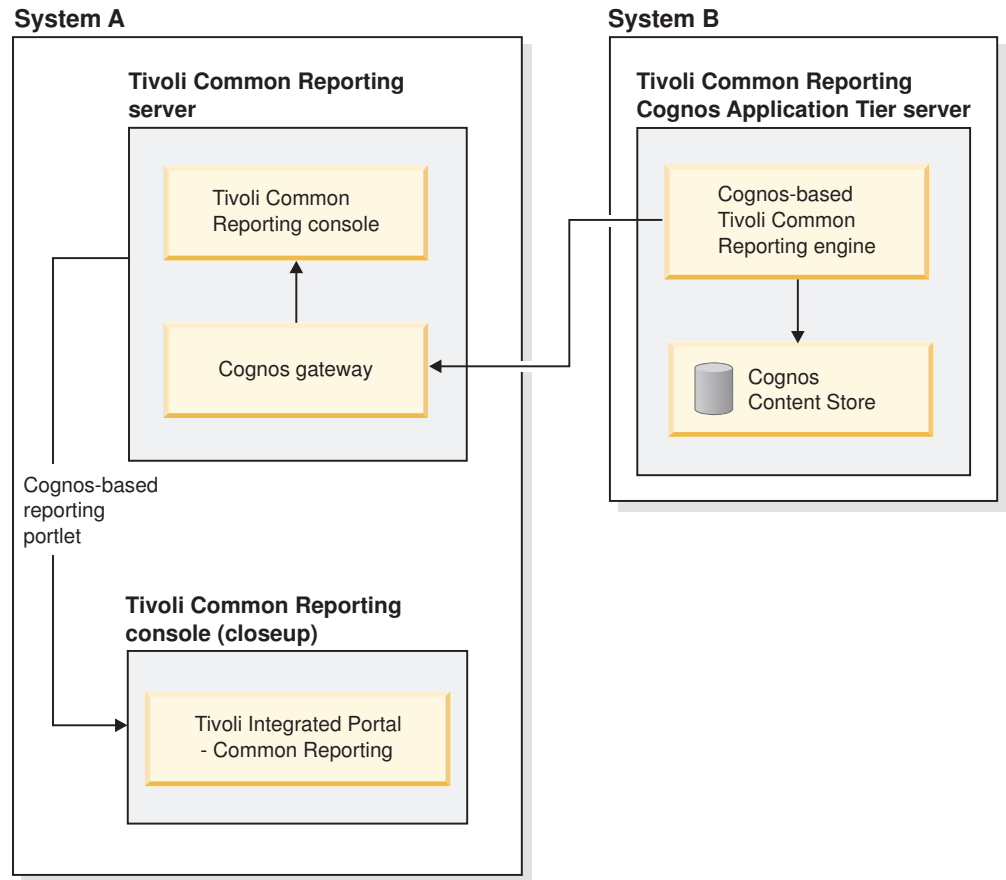
### **Single computer:**

**System A**

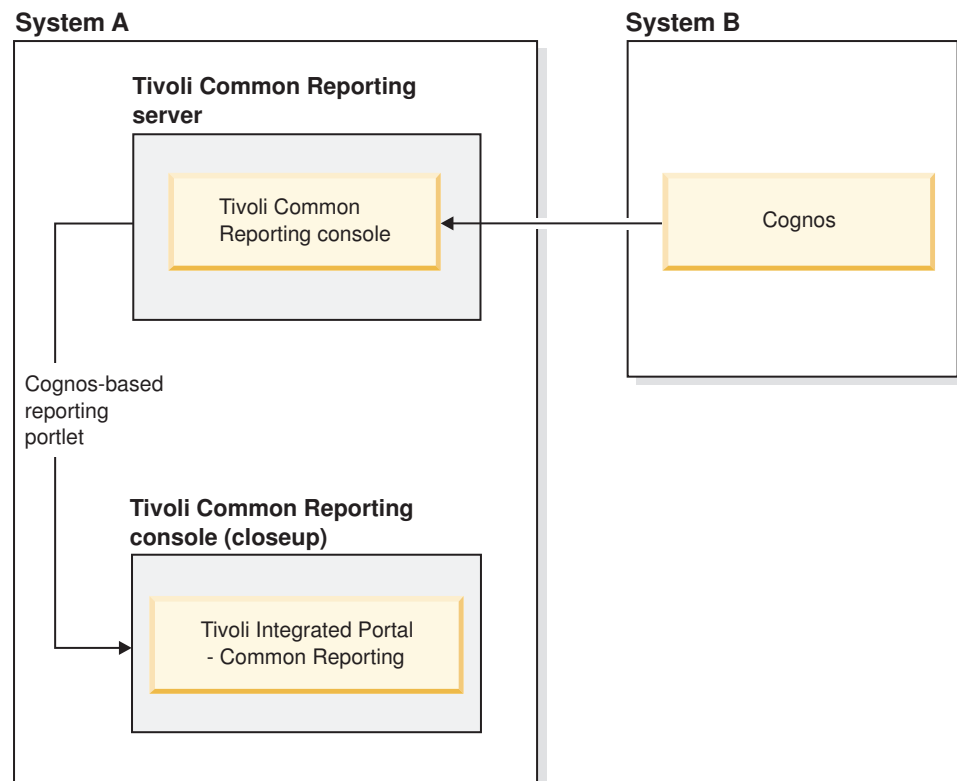


**Distributed environment:**





#### Integration with an existing Cognos instance:



**Note:** Tivoli Common Reporting version 2.1.1 is based on Cognos Business Intelligence Reporting version 8.4.1, Fix Pack 3.

*Table 1. Software components*

Core components	Optional components
<p><b>Tivoli Common Reporting Server</b> The application server is a J2EE lightweight implementation of the embedded WebSphere® Application Server. It provides a single sign-on service based on the WebSphere security module and Lightweight Third-Party Authentication (LTPA).</p> <p><b>Cognos-based Tivoli Common Reporting engine</b> The dispatcher is the entry point for IBM Cognos 8 service requests sent by a web server gateway or other software. The dispatcher handles the routing requests and balances the load of user requests to the various IBM Cognos 8 services.</p> <p><b>Cognos gateway</b> A portal enabling communication between Tivoli Common Reporting Server and the Cognos-based Tivoli Common Reporting engine.</p> <p><b>Cognos Content Store</b> A database that contains data that IBM Cognos 8 needs to operate, such as report specifications, published models, and the packages that contain them; connection information for data sources; information about the external namespace, and the Cognos namespace itself; and information about scheduling and bursting reports.</p> <p><b>Tivoli Integrated Portal web user interface</b> Based on Tivoli Integrated Portal, the following web user interface is available for the reporting solution:</p> <ul style="list-style-type: none"> <li>• <b>Common Reporting</b> - a web portal for IBM Cognos 8 and a component which interacts with the Cognos Content Store. It is a frontend to publish, find, manage, organize, and view organization's reports.</li> </ul>	<p><b>Tivoli Common Reporting Cognos Application Tier Server</b></p> <p><b>Cognos</b> An existing instance of IBM Cognos BI Server or IBM Cognos 8 Business Intelligence Reporting.</p>

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## Web resources

Check out other useful Web resources for Tivoli Common Reporting.

## Common Reporting

For more information about using the product or for technical assistance, visit the IBM Cognos Resource Center at [http://www.ibm.com/software/data/support/cognos\\_crc.html](http://www.ibm.com/software/data/support/cognos_crc.html). This site provides information on support, professional services, and education.

Take a look at the Cognos 8.4.1 information center at <http://publib.boulder.ibm.com/infocenter/c8bi/v8r4m0/index.jsp>.

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## Getting started with reports

Perform the necessary actions to use the reporting options in Tivoli Integrated Portal as the common integrated reporting platform for products across the Tivoli portfolio. It enables you to link multiple reports across various Tivoli products to simplify the report navigation and accelerate access to key reporting information.

### Before you begin

1. Install Tivoli Common Reporting.
2. Install Framework Manager to be able to create your own data models.
3. Configure the Framework Manager connection to Tivoli Common Reporting.

### About this task

After you have installed Tivoli Common Reporting, prepare your report packages to be able to generate, publish, and edit your reports.

### Procedure

1. If you have the report packages ready, import the report packages:
  - Import Cognos report packages.
  - Import BIRT report packages.
  - a. Create or update your data sources:
    - For Cognos-based report packages, configure the database connection.
    - For BIRT-based report packages, ensure that the report package data sources point to the existing data sources. Use the “trcmd -list” on page 134 command to see your data source settings, and the “trcmd -modify” on page 136 command to modify them, if necessary.

**Tip:** BIRT reports are separate from Cognos, predefined reports to which you can make simple changes. You can also create or modify report designs with the use of an open-source BIRT report designer, which is not shipped with Tivoli Common Reporting but is available for downloading.

2. If you have to create a new report package:
  - a. Configure the database connection.
  - b. Create a data model in Framework Manager.

**Tip:** For more instructions, see the Framework Manager User Guide in Cognos information center.

- c. Import the metadata from your data sources. When you have done imported the metadata, you can start modeling in Framework Manager. You can define the relations between objects such as tables, views, and queries, you can select the layers to define which objects you want to make visible, you can define what you want to publish, and finally, you can create and

publish a package containing the model and reports. For more information, see Framework Manager User Guide. If you have configured the connection between Framework Manager and Tivoli Common Reporting, the published package is automatically pushed to Tivoli Common Reporting and you can see it in its respective folder inside Tivoli Common Reporting.

- d. Log in to the reporting interface and select **Launch** → **Query Studio** to test your model and create simple ad hoc reports, or select **Launch** → **Report Studio** to create more complex reports.
- e. Create a final package.

## Logging in to the reporting interface

Use your web browser to access the reporting interface based on the Tivoli Integrated Portal.

### About this task

With the reporting interface, you can perform simple lightweight tasks as well as more advanced scalable reporting.



#### Common Reporting

Scalable, enterprise reporting option provided by IBM Cognos 8 Business Intelligence Reporting.

Using this feature you can access the following reporting options:

- Create on demand reports.
- Use the Web-based report authoring.
- Email reports.

**Tip:** To access Tivoli Common Reporting or Tivoli Integrated Portal documentation from the user interface, click **Help** in the upper right corner. To access Cognos

Administration and Security guide, click  in the console. For more Cognos guides, click .

### Procedure

1. Navigate to the following URL:

`http://hostname:port/ibm/console`

The default URL is:

`http://localhost:16310/ibm/console`

- Replace *hostname* with the TCP/IP host name of the system where Tivoli Common Reporting is installed, or `localhost` if you are running the web browser on the same system.
- Replace *port* with the port number that you specified during installation.

**Tip:** On a Windows system where Tivoli Common Reporting is installed locally, you can click **Start** → **Tivoli Common Reporting** → **Launch Reporting Browser** to open the default browser with the correct URL.

2. On the Tivoli Integrated Portal login page, log in with a user ID that has access to Tivoli Common Reporting. Access is determined by user roles associated with user IDs. This might be the user ID and password you specified during

the installation process, or a user ID and password provided to you by an administrator. The Tivoli Integrated Portal navigation window opens.

**Tip:** Only one logon is required when accessing the reporting interface. The single sign-on option is enabled between the two reporting options.

3. In the navigation pane on the left side of the window, click the plus sign + beside **Reporting** to expand the tree.
4. Choose **Common Reporting** to work with the enterprise reporting options.

### Single sign-on (SSO)

Single sign-on (SSO) is the ability of a user to log on once and access multiple applications without having to log on to each application separately. It is multi-server session-based authentication that allows web application users to log on once to WebSphere Application Server, and then access another application's WebSphere Application Server (in the same DNS domain) that is enabled for single signon without having to log in again.

The server is configured to use the Lightweight Third-Party Authentication (LTPA) authentication. When logging in, the user is prompted for a name and password which can later be reused. When the user is authenticated, the browser receives a token which is stored for a given session. When the LTPA token has been received and the user tries to access the server in the same security domain, the authentication is automatic and the user is not prompted for a name and password, if the browsing session was not terminated.

IBM Tivoli Common Reporting is available from the enhanced WebSphere Application Server. This is why a client requesting that application can be required to perform multiple logons when accessing other secure applications, such as advanced reporting. Each log on is likely to require different logon identities.



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## Chapter 2. Installing



A complete Tivoli Common Reporting installation comprises multiple components. Before installing one or more of these components, you must understand them and the installation process.

---

### Hardware and software requirements

Tivoli Common Reporting is available on a range of operating systems and supports several browser types.

*Table 2. Hardware and software requirements.*

**Hardware requirements:**

- Main memory - 2 GB
- Processor speed - for best performance, processor speeds must be at least 1 GHz for RISC architectures and 2 GHz for Intel® architectures. Choosing faster processors should result in improved response time, greater throughput, and lower processor utilization.
- Disk storage:
  - **For single-computer installation** - up to 2.4 GB, depending on installation options selected.
  - **For distributed installation** - Cognos-based Tivoli Common Reporting engine - 800 MB, user interface - 1.5 GB.
  - **For existing Cognos BI infrastructure installation** - 450 MB.
  - **Temporary directory** - 800 MB.

**Note:** The optional, separately installed IBM Cognos 8 Business Intelligence Modeling component requires additional disk space of 700 MB.

Table 2. Hardware and software requirements. (continued)

**Supported operating systems:**

**HP-UX HP-UX**

- HP-UX 11i v3 IA 64-bit
- HP-UX 11i v3 PA-RISC 32-bit and 64-bit Tolerate

**AIX IBM AIX®**

- IBM AIX version 5.3 32-bit and 64-bit
- IBM AIX version 6.1 32-bit and 64-bit
- IBM AIX version 7.1 32-bit and 64-bit

**Linux Red Hat Red Hat Enterprise Linux**

**Important:** Because Tivoli Common Reporting installs 32-bit binary files, you must install the 32-bit versions of the prerequisite libraries, even on 64-bit system. Otherwise, the installation fails.

- RedHat Enterprise Linux 5.0 Advanced Platform x86 32-bit and 64-bit  
**Restriction:** The following system libraries must be installed:
  - compat-libstdc++-33.3.2.3
  - compat-glibc-2.3.4-2.26
  - openmotif22-2.2.3-18
- RedHat Enterprise Linux 5.0 - System z 31-bit and 64-bit  
**Restriction:** Tivoli Common Reporting can only run on this system with the following libraries installed:
  - libXmu-1.0.2-5
  - libXp-1.0.0-8
  - openmotif22-2.2.3-18

**Linux SUSE SUSE**

- SUSE Linux Enterprise Server 10.0 - x86 32-bit and 64-bit
- SUSE Linux Enterprise Server 11.0 - x86 32-bit and 64-bit  
**Restriction:** The following system libraries are required to run Tivoli Common Reporting:
  - compat-32bit
  - compat-libstdc++
  - openmotif-libs-32bit-2.2.4
- SUSE Linux Enterprise Server 10.0 - System z 31-bit and 64-bit
- SUSE Linux Enterprise Server 11.0 - System z 64-bit  
**Restriction:** The following system libraries are required to run Tivoli Common Reporting on SUSE systems:
  - libstdc++33-32bit-3.3.3-11.9
  - compat-32bit-2009.1.19-2.1
  - openmotif22-libs-32bit-2.2.4-138.18.1

**Solaris Solaris**

- Solaris 9 on SPARC 32-bit and 64-bit
- Solaris 10 on SPARC 32-bit and 64-bit

**Windows Microsoft Windows**

- Microsoft Windows Server 2003 R2 Enterprise Edition 32-bit and 64-bit
- Microsoft Windows Server 2008 R2 Standard Edition 64-bit
- Microsoft Windows Server 2008 Standard Edition 32-bit and 64-bit
- Microsoft Windows Server 2008 Enterprise Edition 32-bit and 64-bit
- Microsoft Windows Server 2008 R2 Enterprise Edition 64-bit



Table 2. Hardware and software requirements. (continued)

<b>Deployment Engine:</b>  400 MB in the /usr directory or your home directory  at least 1 MB in the /var directory <b>Important:</b> If you are installing on a non-Windows operating system, and you have the var and usr directories mounted on a different partition, ensure that the partition is not empty. Otherwise, the Deployment Engine will not install.
<b>Supported web browsers:</b> <ul style="list-style-type: none"><li>• Windows Internet Explorer version 7 or 8 on Microsoft Windows <b>Tip:</b> For some operations, the browser security settings are too restrictive. See the Troubleshooting section of the information center for additional security configuration of the Internet Explorer browser.</li><li>• Mozilla Firefox version 3.6</li></ul>

---

## Installation scenarios and installation modes

You can choose from two installation modes and three main Tivoli Common Reporting installation configurations.

You can choose from the following installation modes:

- **Install new instance of Tivoli Common Reporting**
- **Reuse the existing instance of Tivoli Integrated Portal.** Use this option if you already have a product based on Tivoli Integrated Portal in your infrastructure. This mode allows you to install Tivoli Common Reporting on the same instance of Tivoli Integrated Portal as the product you already have.

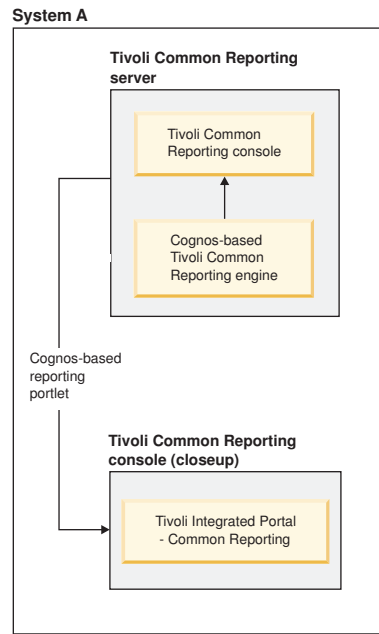
Tivoli Common Reporting, version 2.1.1 introduces a 64-bit installer alongside the 32-bit installer present in previous versions.

**Important:** The 64-bit installer can only be used for a stand-alone Tivoli Common Reporting installation and only Tivoli Integrated Portal version 2.2 can be reused. Because the previous Tivoli Common Reporting versions were 32-bit, you cannot use the 64-bit installer to upgrade an existing Tivoli Common Reporting version.

The following installation scenarios are available:

- Single-computer installation
- Distributed installation
- Integration with existing IBM Cognos BI infrastructure

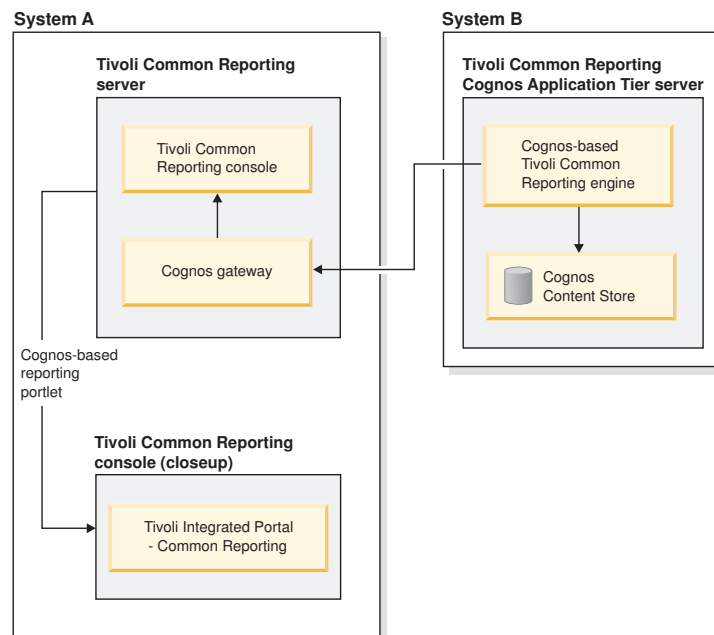
## Scenario A: Single-computer installation



Use this scenario for non-scalable, lightweight reporting with all the components installed on a single system.

You can use a file-based user registry from embedded WebSphere Application Server as a user repository.

## Scenario B: Distributed installation

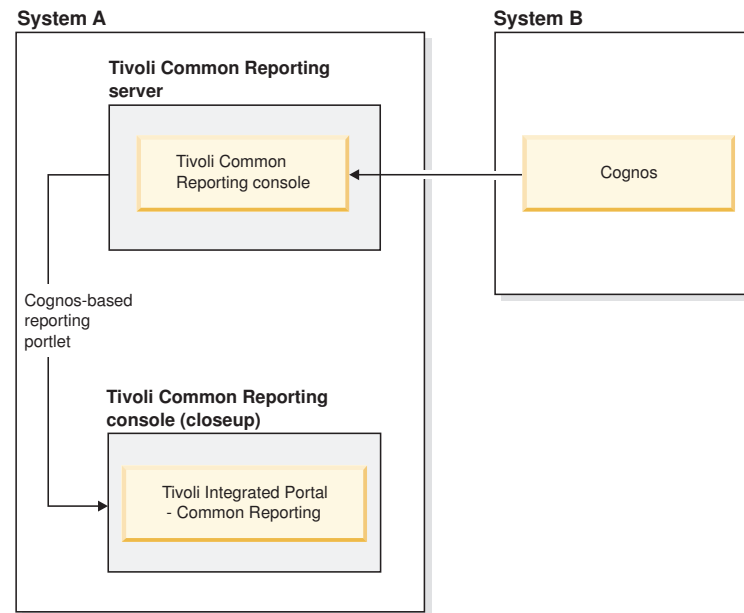


Use this configuration for scalable, enterprise-wide installation with the components dispatched on at least two machines.

In this installation scenario, LDAP can be used as the user repository to enable single sign-on.

- Two-phase installation:
  1. The Cognos-based Tivoli Common Reporting engine is installed first on at least one computer in the organization.
  2. Then the Tivoli Common Reporting user interface is installed anywhere users will work with reports.

## Scenario C. Integrating existing Cognos BI infrastructure



Use this if you already use Cognos BI infrastructure.

The Tivoli Common Reporting user interface is installed on one computer, and configured to work with a Cognos that was installed from a source other than the IBM Tivoli Common Reporting installation program. The engine can be an IBM Cognos BI Server or IBM Cognos 8 Business Intelligence Reporting.

---

## Tivoli Common Reporting installation paths

Learn about the location of the Tivoli Common Reporting installation directories that depends on the installation scenario. The installation paths in version 2.1.1 remain the same as the installation paths in version 2.1.

### Changes in Tivoli Common Reporting version 2.1

The structure of the catalogs into which Tivoli Common Reporting 2.1 is installed is different than in previous versions. This is caused by architectural changes in Tivoli Integrated Portal on which Tivoli Common Reporting is based. The installation directory is now divided into two catalogs - one containing Tivoli Integrated Portal only, and the other containing Tivoli Integrated Portal-based components and products. This solution makes upgrading to a higher version of Tivoli Integrated Portal easier.

During the installation of the reporting engine, only one directory is created, as the reporting engine is not a Tivoli Integrated Portal-based component.

## Installation directories

The following installation directories are created for default Tivoli Common Reporting stand-alone installation:

- The directory that contains the uninstaller and the installation log files. In documentation, it is referred to as *TCR\_install\_dir*.  
Windows operating systems: C:\IBM\tivoli\tcr  
non-Windows operating systems: /opt/IBM/tivoli/tcr
- Tivoli Integrated Portal installation directory, referred to as *TIP\_install\_dir*:  
Windows operating systems: C:\IBM\tivoli\tipv2  
non-Windows operating systems: /opt/IBM/tivoli/tipv2
- *TIP\_components\_dir* directory containing Tivoli Integrated Portal components. Tivoli Common Reporting is one of Tivoli Integrated Portal components but there may be others installed as well:  
Windows operating systems: C:\IBM\tivoli\tipv2Components  
non-Windows operating systems: /opt/IBM/tivoli/tipv2ComponentsTivoli  
Common Reporting is located in the TCRComponent directory, in the documentation referred to as *TCR\_component\_dir*:  
Windows operating systems: C:\IBM\tivoli\tipv2Components\TCRComponent  
non-Windows operating systems: /opt/IBM/tivoli/tipv2Components/  
TCRComponent

## Cognos installation directory

The directory that Cognos is installed into is called *c8\_locations* and can be found in the following locations:

- For a single-computer installation and for the user interface of the distributed installation: *TCR\_component\_dir*\cognos.
- For the reporting engine of a distributed installation: *TCR\_install\_dir*\cognos

---

## Preparing to install

Verify that your environment meets basic requirements for an IBM Tivoli Common Reporting installation. The installation program automatically verifies most requirements but you must check some prerequisites manually.

### Preinstallation Step 1: Read the release notes

Release notes contain late-breaking information about installation.

To access the release notes, go to:  [http://publib.boulder.ibm.com/infocenter/tivihelp/v35r1/index.jsp?topic=/com.ibm.tivoli.tcr.doc\\_21/tcr\\_relnotes.pdf](http://publib.boulder.ibm.com/infocenter/tivihelp/v35r1/index.jsp?topic=/com.ibm.tivoli.tcr.doc_21/tcr_relnotes.pdf)

### Preinstallation Step 2: Verify the environment

Tivoli Common Reporting comprises a collection of components and applications that work together to form a powerful reporting system. You must ensure that you meet the requirements for all the product components.

Make sure that you meet the prerequisites before you start to install the product:

- Verify the Hardware and software requirements.
- Choose your installation scenario.
- Gather all the following information required during the installation procedure:

Installation scenario	Information required
<b>Single-computer installation</b> and <b>Distributed installation</b>	If you choose to configure the Lightweight Directory Access Protocol (LDAP) user repository, gather the following LDAP server information: <b>Tip:</b> If you do not have access to the LDAP information at the time of the installation, you can configure it after the installation completion. <ul style="list-style-type: none"> <li>• Server host name</li> <li>• Server port number</li> <li>• Bind distinguished name</li> <li>• Bind password</li> <li>• Distinguished name of a base entry</li> <li>• PersonAccount entity type</li> <li>• Base entry for PersonAccount</li> <li>• Group entity type</li> <li>• Base entry for group</li> <li>• OrgContainer entity type</li> <li>• Base entry for OrgContainer</li> </ul>
<b>Integrating existing Cognos BI infrastructure</b>	<ul style="list-style-type: none"> <li>• If you choose to configure the LDAP user repository, gather the information shown in the preceding row of this table.</li> <li>• You will also require the URL to the existing Cognos engine you want to integrate.</li> </ul>

- Make sure that you have a range of 14 port numbers free, starting with the port number you enter during an interactive installation wizard (GUI or console mode).

**Note:** The default port number for the installation program which starts the sequence is 16310. However, in the silent installation mode, you can manually assign ports for each application server component. Therefore, the server installed in a silent mode may not use 14 subsequent port numbers. In that case, make sure all the ports selected during silent installation are free. Additionally, port 1527 is used by the IBM Cognos 8 application, and port 9300 is used during a distributed installation on the reporting engine system. Also the 9362 port is used for reporting component logging.

- If you are installing on a non-Windows operating system, ensure that the number of open files for processes is set to a value higher than 1024. If it is not, perform the following steps to increase this value:

**AIX** : Change or add the **nofiles=XXXXXX** parameter in the **/etc/security/limits** file, or by using the **chuser nofiles= XXXXX user\_id** command.

**Linux** **HP-UX** **Solaris** : Run the following command: **ulimit -n nnnn**, where **nnnn** is the wanted number of open files.

**Tip:** On Linux operating system, you can configure the open file limits globally. To do this, open the `/etc/security/limits.conf` file and add the following line:

```
* hard unfile 2048.
```

## Preinstallation Step 3: Preparing installation media

IBM Tivoli Common Reporting includes installation media for the Cognos-based Tivoli Common Reporting engine version 8.4.1 and prerequisite software.

There are two forms of installation media:

- Product disks.
- Installation images which licensed customers can download from the IBM Passport Advantage® website.

For non-Windows operating systems, there are additional installation media (either an installation image or a disk) that include IBM Cognos 8 Business Intelligence Modeling 8.4.1, and IBM Cognos 8 Enhanced Encryption for OpenSSL. For Windows operating systems, the Cognos Modeling installer is located on the Tivoli Common Reporting image.

### Procedure

1. **Linux** and **UNIX** Log on as the same user used to install the full Tivoli Common Reporting product.
2. Place all the downloaded installation images in a single directory on the computer where you are installing. For example  
**Windows** `C:\install_images`  
**Linux** and **UNIX** `/install_images`
3. Extract the contents of all installation images to the directory that you created.

### What to do next

The installation images are now ready.

## Validation of additional disk space required for the installation process

The installation process of Tivoli Common Reporting involves the validation of additional disk space required for both temporary directory (**TEMP**) and the target installation directory in which Deployment Engine is installed.

**Important:** This topic describes **additional** disk space required to successfully finish the installation process. The main disk space required for the installation of Tivoli Common Reporting is described in the **Hardware and software requirements** section of the Installation Guide.

### Procedure

1. **UNIX** :
  - a. disk space required for the **TEMP** folder is checked - the space required is 800 MB.

**Note:** Additional disk space in the **TEMP** folder is required only for the time of the installation.

- b. disk space required for the installation of Deployment Engine is checked:

**Note:** Deployment Engine drives the installation process and stores information about the installed components after the process is finished.

**Note:** Deployment Engine may already exist on your hard drive.

- If you are installing as root and */var* and */usr* are on the same partition, the disk space required is 255 MB.
- If you are installing as root and */var* and */usr* are on different partitions, the disk space required is 5 MB on the */var* partition and 250 MB on the */usr* partition.
- If you are installing as non-root, the disk space required is 255 MB on the *home* partition (e.g. **/home**).

2. **Windows** :

- a. additional disk space required for the installation of Deployment Engine in the target installation location is 255 MB.
- b. If the **TEMP** folder is located on the same partition as the target installation directory, the installation requires additional 800 MB on this partition.
- c. If the **TEMP** folder is located on a different partition than the installation directory, the installation requires 800 MB on that partition.

---

## Installing using the installation wizard

Use the graphical user interface to install the product automatically, and to interactively check whether all the required configuration options are in place.

Two installation scenarios are possible when installing Tivoli Common Reporting.

### About this task

**Windows** : To perform tasks described in this section, you must belong to the Administrators group or be an Administrator.

## Installing on one computer

Install the components on a single system for non-scalable reporting.

The installation program guides you through the process step by step.

### About this task

C:\tivoli is the default installation directory.

### Procedure

1. Insert the product DVD or, if you are installing from an image, open the directory that contains the files that you have previously extracted.
2. Start the installation launchpad:

- **Windows** launchpad.exe
- **Linux** and **UNIX** launchpad.sh

**Tip:** You can also run the installation wizard directly:

- **Windows** install.bat

- **Linux** and **UNIX** `install.sh`
3. Read the installation information, and click **Install IBM Tivoli Common Reporting 2.1.1**.

**Tip:** At any time of running the installation you can go back to the launchpad to access the on-line documentation, or the PDF version of the *Installation Guide*.

4. Choose your installation language, read the Welcome page, and accept the terms of the license agreement.
5. Select **Install new instance of Tivoli Common Reporting** as the installation mode.
6. On the Installation scenarios page, select **Single-computer installation**. Click **Next**
7. Choose the target directory for your installation, and click **Next**. Apart from the installation directory, two new directories are created:
  - C:\IBM\tivoli\tipv2 containing Tivoli Integrated Portal, and
  - C:\IBM\tivoli\tipv2Components\TCRComponent containing, among others, the component, and scripts.

The directories are created because of Tivoli Integrated Portal 2.2 requirements.

8. Create administrative user credentials for Tivoli Integrated Portal by choosing user ID and password and provide the port number. Click **Next**.
9. Provide the port number for IBM Cognos content database.
10. Read the pre-installation summary panel and click **Install**. The installation process, which may take a longer time, begins. No action is required. When the installation is complete, a summary panel is displayed.

## Results

You have now completed the full installation procedure, and can start to run reports on a single system by logging in to the reporting interface.

## What to do next

In this installation scenario, the Tivoli Common Reporting VMMProvider is used for Lightweight Directory Access Protocol (LDAP) by default and no additional configuration is required.

**Important:** During the installation procedure you have created an administrative user. You can now create new users and user groups, and grant them permissions to access various reporting resources and functions. Before you do, make sure you configure security permissions.

## Installing in a distributed environment

Install the components on separate systems to enable engine load balancing. First, you have to install the Cognos-based Tivoli Common Reporting engine on one computer and configure the Lightweight Directory Access Protocol (LDAP) user repository. Then, on a separate computer, you have to install the Tivoli Common Reporting user interface.



## Before you begin

Ensure that all the components that you want to install are of the same bitness. The user interface and the reporting engine must both be either 32-bit or 64-bit.

## Installing the Cognos-based Tivoli Common Reporting engine

Perform the first step in a distributed installation - install the Cognos-based Tivoli Common Reporting engine component.

### Procedure

1. Insert the product DVD or, if you are installing from an image, open the directory that contains the files that you have previously extracted.
2. Start the installation launchpad:
  - **Windows** launchpad.exe
  - **Linux** and **UNIX** launchpad.sh
3. Read the installation information, and click **Install Tivoli Common Reporting**.

**Tip:** At any time of running the installation you can go back to the launchpad to access the on-line documentation, or the PDF version of the *Installation Guide*.

4. Choose your installation language, read the Welcome page, and accept the terms of the license agreement.
5. Select **Install new instance of Tivoli Common Reporting** as the installation mode.
6. On the Scenario Selection page, select the **Distributed installation**.
7. Select to **Install the Tivoli Common Reporting engine**.
8. Choose the installation directory for the reporting engine.
9. Provide the port number for IBM Cognos content database. Up to 15 ports can be used, whose numbers begin with the port number that you provide and increase.

**Note:** Depending on the scenario, additional ports belonging to tomcat will be used by the Cognos-based Tivoli Common Reporting engine.

10. After confirming the installation details, click **Install**.

### Results

You have now installed the Cognos-based Tivoli Common Reporting engine on one computer. View the **Installation summary** panel, and make note of the **Cognos-based Tivoli Common Reporting engine URL** as this information will be used during the second component installation.

### What to do next

Configure Lightweight Directory Access Protocol if you want to use it as your repository. When you have done that, proceed to install the Tivoli user interface.

## Installing Tivoli Common Reporting user interface

When you have installed the Tivoli Common Reporting engine, proceed to install the Tivoli user interface to complete the distributed installation.

## About this task

C:\IBM\tivoli is the default installation directory.

### Procedure

1. Repeat steps 1 through 6 of the reporting engine installation instructions on the computer where you want to install the Tivoli user interface, and choose to **Install the Tivoli Common Reporting user interface**.
2. Specify the installation directory and click **Next**. Apart from the installation directory, two new directories are created:
  - C:\IBM\tivoli\tipv2 containing Tivoli Integrated Portal, and
  - C:\IBM\tivoli\tipv2Components\TCRComponent containing, among others, the component, and scripts.

The directories are created because of Tivoli Integrated Portal 2.2 requirements.

3. Create an administrative Tivoli Integrated Portal user by providing **User ID**, and **Password**, and click **Next**.
4. When prompted for the Cognos-based Tivoli Common Reporting engine URL, provide the address that you noted when you finished installing the reporting engine, and click **Next**. Example: `http://example.com:9300/p2pd/servlet/dispatch`.
5. Provide the port number for IBM Cognos content database.
6. Read the **Pre-Installation Summary** information, and choose to **Install**.

### Results

You have installed the reporting engine on one computer, and installed the user interface on another. Now you can start Tivoli Common Reporting.

**Important:** During the installation procedure you have created an administrative user. If you are planning to use LDAP, you can now configure it. You can also create new users and user groups, and grant them permissions to access various reporting resources and functions. Before you do, make sure you increase the security settings for the Common Reporting user interface described in the Configuring section of the information center.

---

## Installing by using the console mode

Use the console installation method to install IBM Tivoli Common Reporting from a command line.

### About this task

The console installation has the same logical flow as the graphical user interface installation wizard.

**Windows** : To perform this task, you must belong to the Administrators group or be an Administrator.

### Procedure

1. Copy the installation program file to a temporary directory on the target system. The installation program file is in the TCRInstaller directory of the installation DVD or downloaded installation image. Use the installation program for your operating system:

- **Windows** `install.exe`
  - **Linux** and **UNIX** `install.sh`
2. Start the installation program from the command line. Use the following command:  
`<install_program> -i console`

For example, to run the Windows installation program, run this following command:

```
install -i console
```

3. Follow the instructions to complete the installation.

**Tip:** At any time during the installation, you can type in previous to go back to the previous pane, or quit to quit the installation.

You need the following information:

- The location where you want to install IBM Tivoli Common Reporting . The path can contain only alphanumeric characters and the following special characters:
  - underscore (\_)
  - hyphen (-)
  - period (.)
  - colon (:)
  - slash (/)
  - backslash (\)
  - space
- The user ID and password you want to use to log on to IBM Tivoli Common Reporting (you can create additional user IDs after installation). User IDs and passwords can contain only alphanumeric characters and the following special characters:
  - underscore (\_)
  - hyphen (-)
  - period (.)

Apart from the installation directory, two new directories are created:

- C:\IBM\tivoli\tipv2 containing Tivoli Integrated Portal, and
- C:\IBM\tivoli\tipv2Components\TCRComponent containing, among others, the component, and scripts.

The directories are created because of Tivoli Integrated Portal 2.2 requirements.

## Results

After the installation program finishes, IBM Tivoli Common Reporting is installed and ready to use.

---

## Installing using the silent mode

Silent installation, also known as unattended installation, uses a response file to automate the installation process. No user interaction is required.

**Tip:** Choose silent installation when you want to perform identical installation on several computers.

## About this task

**Windows** : To perform this task, you must belong to the Administrators group or be an Administrator.

**Important:** If you are installing in distributed scenario, ensure that the reporting engine and the user interface are both either 32-bit or 64-bit. Installing components of different bitness is not supported and returns errors.

## Procedure

1. Copy the installation program file to a temporary directory on the target system. The installation program file is in the TCR21Installer directory of the installation DVD or downloaded installation image. Use the installation program for your operating system:
  - **Windows** install.exe
  - **Linux** and **UNIX** install.sh
2. Copy the TCR\_sample\_response.txt file available from the installation DVD or downloaded installation image to a directory on the target system.

**Fast path:** If you already know your installation scenario, choose one of the scenario-specific response files that include only options relevant to your installation type.

- For the **single-computer installation** scenario, use the TCR\_sample\_response\_embedded.txt file
  - For the **distributed installation** scenario, first use the TCR\_sample\_response\_dispatcher.txt file on the computer where you want to install the reporting engine, and then the TCR\_sample\_response\_gateway.txt on the computer where you want to install the user interface.
  - For the integration with **existing Cognos BI** scenario, use the TCR\_sample\_response\_external.txt file.
3. Edit the sample response file using a text editor.

You must update the file to indicate acceptance of the software license, installation directory, and installation scenario selection.

Additionally, depending on the installation scenario, you can specify the following parameters:

### Single-computer installation

single\_computer\_installation:

All parameters can be used except for **COGNOS\_URL**.

### Distributed installation

ui\_for\_cognos:

All parameters can be used.

### Integrating existing Cognos BI

integrate\_existing\_cognos:

All parameters can be used.

4. Start the installation program from the command line. Use the following command, specifying the name and the location of your response file:  
`<install_program> -i silent -f TCR_sample_response.txt`

## Results

The installation program runs without any prompts or user interaction.

Apart from the installation directory, two new directories are created:

- *install\_dir\tipv2* containing Tivoli Integrated Portal, and
- *install\_dir\tipv2Components\TCRComponent* containing, among others, the component and scripts.

**Tip:** See installation paths for more information.

This is caused by Tivoli Integrated Portal 2.2 requirements.

## What to do next

Check the installation log for any error messages generated by the installation. Locate the *TCR211InstallTrace00.log* and *TCR211InstallMessage00.log* files in your home directory.

If you installed in a distributed environment, configure the connection with the engine.

**Note:** During the installation procedure you have created an administrative user. You can now create new users and user groups, and grant them permissions to access various reporting resources and functions. Before you do, make sure you configure security permissions.

## Response file for silent installation

The installation media and images for Tivoli Common Reporting provide scenario-specific response files that are tailored to include only options relevant to your installation type.

**Fast path:** If you already know your installation scenario, choose one of the scenario-specific response files that include only options relevant to your installation type.

- For the **single-computer installation** scenario, use the *TCR\_sample\_response\_embedded.txt* file
- For the **distributed installation** scenario, first use the *TCR\_sample\_response\_dispatcher.txt* file on the computer where you want to install the reporting engine, and then the *TCR\_sample\_response\_gateway.txt* on the computer where you want to install the user interface.
- For the integration with **existing Cognos BI** scenario, use the *TCR\_sample\_response\_external.txt* file.
- *TCR\_sample\_response\_embedded.txt*
- *TCR\_sample\_response\_dispatcher.txt*
- *TCR\_sample\_response\_gateway.txt*
- *TCR\_sample\_response\_external.txt*

### **TCR\_sample\_response\_embedded.txt:**

```
##### {COPYRIGHT-TOP} ###  
## OCO Source Materials  
## 5724-T69  
##  
## © Copyright IBM Corp. 2011
```

```

##
## The source code for this program is not published or otherwise divested
## of its trade secrets, irrespective of what has been deposited with
## the U.S. Copyright Office.
##### {COPYRIGHT-END} ###
#####
##
## InstallAnywhere variables to configure the install of
## Tivoli Common Reporting @TCR_VERSION@ components.
##
## Usage: install[.sh|.bat] -f <full path to this file> -i <installation mode>
##         available modes:  silent
##                           console
##                           gui
##
## On Windows, install.exe will return immediately. To avoid this, you should
## use the batch file install.bat which wraps it.
##
## # sign is used here to comment out the lines that follow it
##
#####
## This response file example is profiled for the embedded (single box)
## installation scenario (for further details on installation scenarios see
## TCR @TCR_VERSION@ documentation).
##
## Variables that are necessary in this scenario have been left uncommented
## and with example values.
##
#####

#----
#---- Set Silent License Acceptance
#---- To accept the license agreement: change the value to true.
#----         example: LICENSE_ACCEPTED=true
#---- If the LICENSE_ACCEPTED has a value other than 'true' the installation
#---- will exit.
#----
#---- By removing the # sign before the #LICENSE_ACCEPTED=false string
#---- and changing 'false' to 'true' you mark that you agree to
#---- the Tivoli Common Reporting @TCR_VERSION@ license agreement.
LICENSE_ACCEPTED=false

#----
#---- Choose the preferred installation language
#---- For default leave commented. Available values are: cs, de, en, es, fr,
#---- it, ja, ko, pl, pt, pt_BR, ru, tr,zh, zh_CN, zh_TW
INSTALLATION_LANGUAGE=en

#----
#---- Install into existing WebSphere Application Server
#---- Specify decision to install Tivoli Common Reporting into an existing
#---- WebSphere Application Server.
#---- Note that:
#---- If this property is set to true, then the following
#---- TCR_INSTALLATION_DIRECTORY property must be correctly set to the existing
#---- WebSphere Application Server location (aka WAS_HOME).
INSTALL_INTO_EXISTING_WAS=false

#----
#---- Choose Installation Folder
#---- Silent installation: provide a fully qualified path
#----         example: TCR_INSTALLATION_DIRECTORY=C:\\IBM\\tivoli\\tcr
#---- Note that:
#---- Backslash "\" is considered to be a special character and needs to be
#---- escaped, so use double backslashes: "\\" when defining the path on

```

```

#---- Windows.
#----
#---- Silent uninstallation: do not define the TCR_INSTALLATION_DIRECTORY,
#----         leave it commented out
#----
#---- For reuse of an instance of Tivoli Common Reporting, point to its
#---- existing installation location.
#---- Examples:
#----   For Windows platform: C:\\IBM\\tivoli\\tcr
#----   For UNIX platform: /opt/IBM/tivoli/tcr
TCR_INSTALLATION_DIRECTORY=

#---- For the TIP specific part of the solution
#----
#---- If INSTALL_INTO_EXISTING_WAS=true, the install folder must be the
#---- location of WebSphere Application Server such as:
#---- TIP_INSTALLATION_DIRECTORY=C:\\IBM\\WebSphere\\AppServer
#----
#---- Examples:
#----   For Windows platform: C:\\IBM\\tivoli\\tip
#----   For UNIX platform: /opt/IBM/tivoli/tip
TIP_INSTALLATION_DIRECTORY=

#---- For the reuse scenario
#----
#---- If installing in a reuse scenario to simply add some additional components
#---- to already installed instance, set this variable to: 'true', otherwise comment
#---- it out or set to: 'false' (the default).
#----
#---- Example:
#----   REUSE_EXISTING_INSTALLATION=true
REUSE_EXISTING_INSTALLATION=false

#----
#---- Installation scenario
#---- Choose one of the following installation components configuration for
#---- this installation procedure:
#----   cognos_reporting_engine - first step of the distributed installation
#----                           scenario (INSTALLATION_SCENARIO=cognos_reporting_engine)
#----   ui_for_cognos - second step of the distributed installation scenario
#----                   (INSTALLATION_SCENARIO=ui_for_cognos)
#----   single_computer_installation
#----   integrate_existing_cognos
INSTALLATION_SCENARIO=single_computer_installation

#----
#---- Port number for IBM Cognos content database
#----
COGNOS_CONTENT_DATABASE_PORT=1527

#----
#---- Tivoli Integrated Portal configuration related
#----

#---- WebSphere information
#----
#---- Enter a WebSphere Application Server administrator user name
#---- and password. If the password is not provided the installer
#---- will fail.
WAS_USER_NAME=tipadmin
WAS_PASSWORD=tipadmin

# Should it be upgrade?
PERFORM_UPGRADE=false

# Following variables are for upgrade only
#

```

```

# Path to the previous instance of TCR or migration package
#UPGRADE_SOURCE=/opt/IBM/tivoli/tip
#or on Windows systems (note double backslashes):
#UPGRADE_SOURCE=C:\\IBM\\tivoli\\tip
#
# Define type of the upgrade source: existing instance or a migration package.
# Valid values: instance, package
#UPGRADE_MODE=instance
#
# These are only for upgrade from existing instance of TCR
#PREVIOUS_INSTANCE_USER_ID=tipadmin
#PREVIOUS_INSTANCE_USER_PASSWORD=xxx

#----
#---- Enter the ports that WebSphere Application server will use.
#---- Only WAS_WC_defaulthost is required. The rest of the ports, if not
#---- specified, will be derived basing on the WAS_WC_defaulthost.
WAS_WC_defaulthost=16310
#WAS_WC_defaulthost_secure=16311
#WAS_BOOTSTRAP_ADDRESS=16312
#WAS_SOAP_CONNECTOR_ADDRESS=16313
#WAS_IPC_CONNECTOR_ADDRESS=16314
#WAS_WC_adminhost=16315
#WAS_WC_adminhost_secure=16316
#WAS_DCS_UNICAST_ADDRESS=16318
#WAS_ORB_LISTENER_ADDRESS=16320
#WAS_SAS_SSL_SERVERAUTH_LISTENER_ADDRESS=16321
#WAS_CSIV2_SSL_MUTUALAUTH_LISTENER_ADDRESS=16322
#WAS_CSIV2_SSL_SERVERAUTH_LISTENER_ADDRESS=16323

```

#### TCR\_sample\_response\_dispatcher.txt

```

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## of its trade secrets, irrespective of what has been deposited with
## the U.S. Copyright Office.
##### {COPYRIGHT-END} ###
#####
## InstallAnywhere variables to configure the install of
## Tivoli Common Reporting @TCR_VERSION@ components.
##
## Usage: install[.sh|.bat] -f <full path to this file> -i <installation mode>
##         available modes:  silent
##                           console
##                           gui
##
## On Windows, install.exe will return immediately. To avoid this, you should
## use the batch file install.bat which wraps it.
##
## # sign is used here to comment out the lines that follow it
##
#####
#####
## This response file example is profiled for the dispatcher installation
## scenario (for further details on installation scenarios see TCR @TCR_VERSION@
## documentation).
##
## Variables that are necessary in this scenario have been left uncommented
## and with example values.
##

```



```
#####

#----
#---- Set Silent License Acceptance
#---- To accept the license agreement: change the value to true.
#----           example: LICENSE_ACCEPTED=true
#---- If the LICENSE_ACCEPTED has a value other than 'true' the installation
#---- will exit.
#----
#---- By removing the # sign before the #LICENSE_ACCEPTED=false string
#---- and changing 'false' to 'true' you mark that you agree to
#---- the Tivoli Common Reporting @TCR_VERSION@ license agreement.
LICENSE_ACCEPTED=false

#----
#---- Choose the preferred installation language
#---- For default leave commented. Available values are: cs, de, en, es, fr,
#---- it, ja, ko, pl, pt, pt_BR, ru, tr,zh, zh_CN, zh_TW
INSTALLATION_LANGUAGE=en

#----
#---- Choose Installation Folder
#---- Silent installation: provide a fully qualified path
#----           example: TCR_INSTALLATION_DIRECTORY=C:\\IBM\\tivoli\\tcr
#---- Note that:
#----   Backslash "\" is considered to be a special character and needs to be
#----   escaped, so use double backslashes: "\\" when defining the path on
#----   Windows.
#----
#---- Silent uninstallation: do not define the TCR_INSTALLATION_DIRECTORY,
#----           leave it commented out
#---- Examples:
#----   For Windows platform: C:\\IBM\\tivoli\\tcr
#----   For UNIX platform: /opt/IBM/tivoli/tcr
TCR_INSTALLATION_DIRECTORY=

#----
#---- Installation scenario
#---- Choose one of the following installation components configuration for
#---- this installation procedure:
#----   cognos_reporting_engine - first step of the distributed installation
#----                           scenario (INSTALLATION_SCENARIO=cognos_reporting_engine)
#----   ui_for_cognos - second step of the distributed installation scenario
#----                   (INSTALLATION_SCENARIO=ui_for_cognos)
#----   single_computer_installation
#----   integrate_existing_cognos
INSTALLATION_SCENARIO=cognos_reporting_engine

#----
#---- Port number for IBM Cognos content database
#----
COGNOS_CONTENT_DATABASE_PORT=1527

# Should it be upgrade?
PERFORM_UPGRADE=false

# Following variables are for upgrade only
#
# Path to the previous instance of TCR or migration package
#UPGRADE_SOURCE=/opt/IBM/tivoli/tcr
#or on Windows systems (note double backslashes):
#UPGRADE_SOURCE=C:\\IBM\\tivoli\\tcr
#
# Define type of the upgrade source: existing instance or a migration package.
# Valid values: instance, package
#UPGRADE_MODE=instance
#
```

## TCR\_sample\_response\_gateway.txt

```
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## 5724-T69
##
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## the U.S. Copyright Office.
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#####
##
## InstallAnywhere variables to configure the install of
## Tivoli Common Reporting @TCR_VERSION@ components.
##
## Usage: install[.sh|.bat] -f <full path to this file> -i <installation mode>
##         available modes:  silent
##                           console
##                           gui
##
## On Windows, install.exe will return immediately. To avoid this, you should
## use the batch file install.bat which wraps it.
##
## # sign is used here to comment out the lines that follow it
##
#####
#####
##
## This response file example is profiled for installing the UI for Cognos
## component of the distributed installation scenario (for further details
## on installation scenarios see TCR @TCR_VERSION@ documentation).
##
## Variables that are necessary in this scenario have been left uncommented
## and with example values.
##
#####

#----
#---- Set Silent License Acceptance
#---- To accept the license agreement: change the value to true.
#----         example: LICENSE_ACCEPTED=true
#---- If the LICENSE_ACCEPTED has a value other than 'true' the installation
#---- will exit.
#----
#---- By removing the # sign before the #LICENSE_ACCEPTED=false string
#---- and changing 'false' to 'true' you mark that you agree to
#---- the Tivoli Common Reporting @TCR_VERSION@ license agreement.
LICENSE_ACCEPTED=false

#----
#---- Choose the preferred installation language
#---- For default leave commented. Available values are: cs, de, en, es, fr,
#---- it, ja, ko, pl, pt, pt_BR, ru, tr,zh, zh_CN, zh_TW
INSTALLATION_LANGUAGE=en

#----
#---- Install into existing WebSphere Application Server
#---- Specify decision to install Tivoli Common Reporting into an existing
#---- WebSphere Application Server.
#---- Note that:
#---- If this property is set to true, then the following
#---- TCR_INSTALLATION_DIRECTORY property must be correctly set to the existing
#---- WebSphere Application Server location (aka WAS_HOME).
INSTALL_INTO_EXISTING_WAS=false

#----
```

```

#---- Choose Installation Folder
#---- Silent installation: provide a fully qualified path
#----          example: TCR_INSTALLATION_DIRECTORY=C:\\IBM\\tivoli\\tcr
#---- Note that:
#----   Backslash "\" is considered to be a special character and needs to be
#----   escaped, so use double backslashes: "\\" when defining the path on
#----   Windows.
#----
#---- Silent uninstallation: do not define the TCR_INSTALLATION_DIRECTORY,
#----          leave it commented out
#----
#---- For reuse of an instance of Tivoli Common Reporting, point to its
#---- existing installation location.
#---- Examples:
#----   For Windows platform: C:\\IBM\\tivoli\\tcr
#----   For UNIX platform: /opt/IBM/tivoli/tcr
TCR_INSTALLATION_DIRECTORY=

#---- For the TIP specific part of the solution
#----
#---- If INSTALL_INTO_EXISTING_WAS=true, the install folder must be the
#---- location of WebSphere Application Server such as:
#---- TIP_INSTALLATION_DIRECTORY=C:\\IBM\\WebSphere\\AppServer
#----
#---- Examples:
#----   For Windows platform: C:\\IBM\\tivoli\\tip
#----   For UNIX platform: /opt/IBM/tivoli/tip
TIP_INSTALLATION_DIRECTORY=

#---- For the reuse scenario
#----
#---- If installing in a reuse scenario to simply add some additional components
#---- to already installed instance, set this variable to: 'true', otherwise comment
#---- it out or set to: 'false' (the default).
#----
#---- Example:
#----   REUSE_EXISTING_INSTALLATION=true
REUSE_EXISTING_INSTALLATION=false

#----
#---- Installation scenario
#---- Choose one of the following installation components configuration for
#---- this installation procedure:
#----   cognos_reporting_engine - first step of the distributed installation
#----                          scenario (INSTALLATION_SCENARIO=cognos_reporting_engine)
#----   ui_for_cognos - second step of the distributed installation scenario
#----                  (INSTALLATION_SCENARIO=ui_for_cognos)
#----   single_computer_installation
#----   integrate_existing_cognos
INSTALLATION_SCENARIO=ui_for_cognos

#----
#---- URL to Cognos
#---- The URL should point to the machine on which the Cognos reporting engine
#---- is installed.
COGNOS_URL=http://<hostname>:9300/p2pd/servlet/dispatch

#----
#---- Tivoli Integrated Portal configuration related
#----

#---- WebSphere information
#----
#---- Enter a WebSphere Application Server administrator user name
#---- and password. If the password is not provided the installer
#---- will fail.
WAS_USER_NAME=tipadmin

```

```

WAS_PASSWORD=tipadmin

# Should it be upgrade?
PERFORM_UPGRADE=false

# Following variables are for upgrade only
#
# Path to the previous instance of TCR or migration package
#UPGRADE_SOURCE=/opt/IBM/tivoli/tip
#or on Windows systems (note double backslashes):
#UPGRADE_SOURCE=C:\\IBM\\tivoli\\tip
#
# Define type of the upgrade source: existing instance or a migration package.
# Valid values: instance, package
#UPGRADE_MODE=instance
#
# These are only for upgrade from existing instance of TCR
#PREVIOUS_INSTANCE_USER_ID=tipadmin
#PREVIOUS_INSTANCE_USER_PASSWORD=xxx

#----
#---- Enter the ports that WebSphere Application server will use
#---- Only WAS_WC_defaulthost is required. The rest of the ports, if not
#---- specified, will be derived basing on the WAS_WC_defaulthost.
WAS_WC_defaulthost=16310
#WAS_WC_defaulthost_secure=16311
#WAS_BOOTSTRAP_ADDRESS=16312
#WAS_SOAP_CONNECTOR_ADDRESS=16313
#WAS_IPC_CONNECTOR_ADDRESS=16314
#WAS_WC_adminhost=16315
#WAS_WC_adminhost_secure=16316
#WAS_DCS_UNICAST_ADDRESS=16318
#WAS_ORB_LISTENER_ADDRESS=16320
#WAS_SAS_SSL_SERVERAUTH_LISTENER_ADDRESS=16321
#WAS_CSIV2_SSL_MUTUALAUTH_LISTENER_ADDRESS=16322
#WAS_CSIV2_SSL_SERVERAUTH_LISTENER_ADDRESS=16323

```

#### TCR\_sample\_response\_external.txt

```

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#####
## InstallAnywhere variables to configure the install of
## Tivoli Common Reporting @TCR_VERSION@ components.
##
## Usage: install[.sh|.bat] -f <full path to this file> -i <installation mode>
##         available modes:  silent
##                           console
##                           gui
##
## On Windows, install.exe will return immediately. To avoid this, you should
## use the batch file install.bat which wraps it.
##
## # sign is used here to comment out the lines that follow it
##
#####
#####
##

```

```

## This response file example is profiled for the external installation
## scenario (for further details on installation scenarios see TCR @TCR_VERSION@
## documentation).
##
## Variables that are necessary in this scenario have been left uncommented
## and with example values.
##
#####

#----
#---- Set Silent License Acceptance
#---- To accept the license agreement: change the value to true.
#---- example: LICENSE_ACCEPTED=true
#---- If the LICENSE_ACCEPTED has a value other than 'true' the installation
#---- will exit.
#----
#---- By removing the # sign before the #LICENSE_ACCEPTED=false string
#---- and changing 'false' to 'true' you mark that you agree to
#---- the Tivoli Common Reporting @TCR_VERSION@ license agreement.
LICENSE_ACCEPTED=false

#----
#---- Choose the preferred installation language
#---- For default leave commented. Available values are: cs, de, en, es, fr,
#---- it, ja, ko, pl, pt, pt_BR, ru, tr,zh, zh_CN, zh_TW
INSTALLATION_LANGUAGE=en

#----
#---- Install into existing WebSphere Application Server
#---- Specify decision to install Tivoli Common Reporting into an existing
#---- WebSphere Application Server.
#---- Note that:
#---- If this property is set to true, then the following
#---- TCR_INSTALLATION_DIRECTORY property must be correctly set to the existing
#---- WebSphere Application Server location (aka WAS_HOME).
INSTALL_INTO_EXISTING_WAS=false

#----
#---- Choose Installation Folder
#---- Silent installation: provide a fully qualified path
#---- example: TCR_INSTALLATION_DIRECTORY=C:\\IBM\\tivoli\\tcr
#---- Note that:
#---- Backslash "\" is considered to be a special character and needs to be
#---- escaped, so use double backslashes: "\\" when defining the path on
#---- Windows.
#----
#---- Silent uninstallation: do not define the TCR_INSTALLATION_DIRECTORY,
#---- leave it commented out
#----
#---- For reuse of an instance of Tivoli Common Reporting, point to its
#---- existing installation location.
#---- Examples:
#---- For Windows platform: C:\\IBM\\tivoli\\tcr
#---- For UNIX platform: /opt/IBM/tivoli/tcr
TCR_INSTALLATION_DIRECTORY=

#---- For the TIP specific part of the solution
#----
#---- If INSTALL_INTO_EXISTING_WAS=true, the install folder must be the
#---- location of WebSphere Application Server such as:
#---- TIP_INSTALLATION_DIRECTORY=C:\\IBM\\WebSphere\\AppServer
#----
#---- Examples:
#---- For Windows platform: C:\\IBM\\tivoli\\tip
#---- For UNIX platform: /opt/IBM/tivoli/tip
TIP_INSTALLATION_DIRECTORY=

```

```

#---- For the reuse scenario
#----
#---- If installing in a reuse scenario to simply add some additional components
#---- to already installed instance, set this variable to: 'true', otherwise comment
#---- it out or set to: 'false' (the default).
#----
#---- Example:
#---- REUSE_EXISTING_INSTALLATION=true
#---- REUSE_EXISTING_INSTALLATION=false

#----
#---- Installation scenario
#---- Choose one of the following installation components configuration for
#---- this installation procedure:
#---- cognos_reporting_engine - first step of the distributed installation
#---- scenario (INSTALLATION_SCENARIO=cognos_reporting_engine)
#---- ui_for_cognos - second step of the distributed installation scenario
#---- (INSTALLATION_SCENARIO=ui_for_cognos)
#---- single_computer_installation
#---- integrate_existing_cognos
#---- INSTALLATION_SCENARIO=integrate_existing_cognos

#----
#---- URL to Cognos
#---- The URL should point to the selected instance of Cognos which has been
#---- installed from a source other than the IBM Tivoli Common Reporting @TCR_VERSION@
#---- installation program.
#---- COGNOS_URL=

#----
#---- Tivoli Integrated Portal configuration related
#----

#---- WebSphere information
#----
#---- Enter a WebSphere Application Server administrator user name
#---- and password. If the password is not provided the installer
#---- will fail.
#---- WAS_USER_NAME=tipadmin
#---- WAS_PASSWORD=tipadmin

# Should it be upgrade?
#---- PERFORM_UPGRADE=false

# Following variables are for upgrade only
#
# Path to the previous instance of TCR or migration package
#UPGRADE_SOURCE=/opt/IBM/tivoli/tip
#or on Windows systems (note double backslashes):
#UPGRADE_SOURCE=C:\\IBM\\tivoli\\tip
#
# Define type of the upgrade source: existing instance or a migration package.
# Valid values: instance, package
#UPGRADE_MODE=instance
#
# These are only for upgrade from existing instance of TCR
#PREVIOUS_INSTANCE_USER_ID=tipadmin
#PREVIOUS_INSTANCE_USER_PASSWORD=xxx

#----
#---- Enter the ports that WebSphere Application server will use
#---- Only WAS_WC_defaulthost is required. The rest of the ports, if not
#---- specified, will be derived basing on the WAS_WC_defaulthost.
#---- WAS_WC_defaulthost=16310
#---- #WAS_WC_defaulthost_secure=16311
#---- #WAS_BOOTSTRAP_ADDRESS=16312
#---- #WAS_SOAP_CONNECTOR_ADDRESS=16313

```

```
#WAS_IPC_CONNECTOR_ADDRESS=16314
#WAS_WC_adminhost=16315
#WAS_WC_adminhost_secure=16316
#WAS_DCS_UNICAST_ADDRESS=16318
#WAS_ORB_LISTENER_ADDRESS=16320
#WAS_SAS_SSL_SERVERAUTH_LISTENER_ADDRESS=16321
#WAS_CSIV2_SSL_MUTUALAUTH_LISTENER_ADDRESS=16322
#WAS_CSIV2_SSL_SERVERAUTH_LISTENER_ADDRESS=16323
```

---

## Installing into an existing Cognos infrastructure

Use this installation scenario if you already use Cognos BI infrastructure. The existing infrastructure can be either IBM Cognos BI Server or IBM Cognos 8 Business Intelligence Reporting.

### Procedure

1. Insert the product DVD or, if you are installing from an image, open the directory that contains the files you extracted previously.
2. Start the installation launchpad:
  - **Windows** launchpad.exe
  - **Linux** and **UNIX** launchpad.sh
3. Read the installation information, and click **Install Tivoli Common Reporting**.

**Tip:** At any time of running the installation you can go back to the launchpad to access the on-line documentation, or the PDF version of the *Installation Guide*.

4. Choose your installation language, read the Welcome page, and accept the terms of the license agreement.
5. Select **Install new instance of Tivoli Common Reporting** as the installation mode.
6. On the Installation scenarios page, select **Integrate your existing Cognos BI infrastructure**. Click **Next**
7. Choose the installation directory, and click **Next**. Apart from the installation directory, two new directories are created:
  - C:\IBM\tivoli\tipv2 containing Tivoli Integrated Portal, and
  - C:\IBM\tivoli\tipv2Components\TCRComponent containing, among others, the component, and scripts.

The directories are created because of Tivoli Integrated Portal 2.2 requirements.

8. Create user credentials for Tivoli Integrated Portal by choosing user ID and password and specify the port number for IBM Cognos content database. Up to 15 ports can be used, whose numbers begin with the port number that you provide and increase.
9. Provide a URL to the existing Cognos engine that you want to integrate, and click **Next**.
10. After confirming the installation details, click **Install**.

### Results

You have now completed the full installation procedure, and can start using the reporting solution on single system by logging in to the reporting interface.

---

## Installing Tivoli Common Reporting into an existing Tivoli Integrated Portal instance

If you already have a product based on Tivoli Integrated Portal 2.1 in your infrastructure, you can install Tivoli Common Reporting components into it so that the two products are in the same Tivoli Integrated Portal instance.

### About this task

You can use either the installation wizard or silent mode to install into an existing Tivoli Integrated Portal instance. In silent mode, the **WAS\_USER\_NAME** and **WAS\_PASSWORD** are credentials that you use to log into the existing Tivoli Integrated Portal console.

**Windows** : To perform this task, you must belong to the Administrators group or be an Administrator.

### Procedure

1. Start the installation launchpad from the product DVD or the installation image:
  - **Windows** launchpad.exe
  - **UNIX** **Linux** launchpad.sh
2. Read the installation information, and click **Install Tivoli Common Reporting**
3. Choose the installation language, read the Welcome page, and accept the license agreement.
4. On the Installation Mode pane, select to **Reuse the existing instance of Tivoli Integrated Portal**.
5. Choose the installation scenario.
6. Select the installation directory and the location of the existing Tivoli Integrated Portal.
7. Provide administrative user credentials that you use to log into Tivoli Integrated Portal console.
8. Provide the port number for IBM Cognos content database.
9. Read the summary panel and click **Install**.

---

## Installing Framework Manager

Framework Manager is a modeling tool for creating and modifying business views of data. The output of the Framework Manager is a package used for creating reports in Tivoli Common Reporting.

### About this task

Framework Manager is a Windows-based utility included in the Cognos Modeling product. The installation image for Cognos Modeling is located on the Tivoli Common Reporting Windows image in the following location:  
\\CognosModeling\\win32\\issetup.exe for Windows operating systems, and as a separate image for non-Windows systems.

Beginning with Tivoli Common Reporting 2.1.1, you can install Framework Manager on a 64-bit computer but it must be installed in a separate directory from the 64-bit components.



## Procedure

1. Run the installation image and provide all the necessary parameters.

**Note:** If you are installing the 64-bit Framework Manager, create a FrameworkManager directory in the *TCR\_component\_dir* directory and select it as the Framework Manager installation path.

2. If you installed a 32-bit Tivoli Common Reporting server on a remote host or in a different directory, install the Cognos FIPS package by running CognosModelingFix\win32\issetup.exe. Specify the same installation directory as the directory you specified for Framework Manager. If you installed a 64-bit Tivoli Common Reporting server, do not install FIPS.

---

## Verifying the installation

After you have installed the reporting solution, access it in a Web browser to verify its installation.

### Procedure

1. Log in to the Tivoli Integrated Portal, and verify that the reporting section is present in the left-hand navigation bar under **Reporting**. For instructions on logging in to the reporting interface, see the information center.

**Tip:** You are prompted for user ID and password when accessing the console from the Tivoli Integrated Portal.

2. Expand the **Reporting** section, click the **Common Reporting** section, and verify that the view in the right window opens up a new portlet.
3. Run the sample overview report that is provided with the reporting tool, and verify that it only displays information about this particular report.

---

## Post-installation tasks

Refer to this section to find out how you can modify your existing Tivoli Common Reporting installation.

## Migrating to a distributed environment

Migrate a single-computer installation to a distributed environment. First, you need to install the Cognos-based Tivoli Common Reporting engine, then, you have to modify the existing single-computer installation.

**Note:** Paths given in the instruction are default path values from the installation procedure.

### Procedure

1. Install the Cognos-based Tivoli Common Reporting engine.
2. Export data from the existing Tivoli Common Reporting instance.
3. Modify single-computer installation.
4. Import data.


## Exporting data from Tivoli Common Reporting

During the migration from single to distributed installation, you will need to export all data from the existing Tivoli Common Reporting instance to preserve them.

## Procedure

1. Export the complete Cognos Content Store from Web user interface:
  - a. Select **Launch** → **Administration**.
  - b. Go to the **Configuration** tab and select **Content Administration**.



- c. Create new package export by clicking .
- d. Follow the wizard to export the archive.

The exported archive is now visible in the **Administration** window.

2. For versions earlier than 2.1, archive the *TCR\_component\_dir\data* directory where all BIRT objects are stored.
3. Archive the directory where report images are stored.

## What to do next

Modify the existing single-computer installation.

## Modifying the existing single-computer installation

Perform this task as the first step in migrating from single-computer installation to distributed installation.

## Before you begin

Ensure that you have a computer with Cognos installed.

## Procedure

1. Navigate to the following directory, and edit the web.xml file:
  - **Windows** *TCR\_component\_dir\cognos\war\gateway*
  - **Linux** and **UNIX** *TCR\_component\_dir/cognos/war/gateway*

Before the `</web-app>` string, add the following lines:

```
<servlet-mapping>
  <servlet-name>ServletGateway</servlet-name>
  <url-pattern>/servlet/component/*</url-pattern>
</servlet-mapping>
<security-constraint>
  <web-resource-collection>
    <web-resource-name>C8</web-resource-name>
    <url-pattern>/servlet/component/*</url-pattern>
    <http-method>GET</http-method>
    <http-method>POST</http-method>
  </web-resource-collection>
  <auth-constraint>
    <role-name>cps_user</role-name>
  </auth-constraint>
</security-constraint>
<login-config>
  <auth-method>BASIC</auth-method>
  <realm-name>Cognos 8</realm-name>
</login-config>
<security-role>
  <role-name>cps_user</role-name>
</security-role>
```

2. Open the IBM Cognos Configuration by running:
  - **Windows** **Start** → **All Programs** → **Tivoli Common Reporting** → **IBM Cognos Configuration**

- **Linux** and **UNIX** `TCR_component_dir/cognos/bin/tcr_cogconfig.sh`
3. In IBM Cognos Configuration generate the ServletGateway.ear file by performing these steps:
    - a. Go to **Actions** → **Build Application Files...**
    - b. In the **Application** section, deselect the **IBM Cognos 8**, and check **Servlet gateway**.
    - c. In the **Application Server Type** section, check **IBM WebSphere 6.x**, and click **Next**.
    - d. Check **EAR file** in the **File type** section, specify location, type in `tarf` as **Context root**, and click **Next**.
  4. If stopped, start the server from a command-line interface:
    - a. Navigate to the installation subdirectory:
      - **Windows** `TCR_component_dir\bin`, and run the `startTCRserver.bat` command.
      - **Linux** and **UNIX** `TCR_component_dir/bin`, and run the `startTCRserver.sh` command.
  5. Uninstall IBM Cognos 8 from WebSphere Application Server:
    - a. Navigate to the installation subdirectory:
      - **Windows** `TIP_install_dir\profiles\TIPProfile\bin`, and run the `wsadmin.bat` command.
      - **Linux** and **UNIX** `TIP_install_dir/profiles/TIPProfile/bin`, and run the `wsadmin.sh` command.
      - Provide the login and password for a Tivoli Common Reporting administrator.
      - Run the following commands:
        - 1) `$AdminApp uninstall "IBM Cognos 8"`
        - 2) `$AdminConfig save`
  6. Install IBM Cognos 8 Servlet Gateway to WebSphere Application Server by running the following commands in the `wsadmin` console:
    - a. `$AdminApp install <directory_with_ServletGateway.ear>/ServletGateway.ear -MapWebModToVH {{.* .* default_host}} -MapRolesToUsers {"cps_user" No Yes "" "" } }`

**Note:**

**Windows** When specifying the `<directory_with_ServletGateway.ear>/ServletGateway.ear` directory change all slashes to forward ones. If there is a space character in the path escape it by typing in `/` or placing it in double quotation marks.

- b. `$AdminConfig save`

Exit the console by typing in `quit`.

7. Modify the class loader function by:
    - a. Navigating to the following directory:
      - **Windows** `TCR_component_dir\conf`
      - **Linux** and **UNIX** `TCR_component_dir/conf`
- and replacing the lines:

```
strApplicationName=sys.argv[0]
strClassLoaderMode=sys.argv[1]
```

with the following ones:

```
selectedScenario=sys.argv[0]
strClassLoaderMode=sys.argv[1]
```

```
if selectedScenario=="gateway":
    strApplicationName='IBM Cognos 8 Servlet Gateway'
else:
    strApplicationName='IBM Cognos 8'
```

as well as appending `AdminConfig.save()` at the end of the `modifyClassLoader.py` file.

b. Navigating to the following directory:

- **Windows** `TIP_install_dir\profiles\TIPProfile\bin`
- **Linux** and **UNIX** `TIP_install_dir/profiles/TIPProfile/bin`

and running the following command: `wsadmin -f TCR_install_dir/TIP21Components/TCRComponent/conf/modifyClassLoader.py gateway PARENT_LAST`. You are asked to provide a username and a password.

8. Stop the server from a command-line interface:

a. Navigate to the installation subdirectory:

- **Windows** `TCR_component_dir\bin`, and run the `stopTCRserver.bat` command.
- **Linux** and **UNIX** `TCR_component_dir/bin`, and run the `stopTCRserver.sh` command.

9. Edit the stop and start server scripts:

• Edit the `startTCRserver` script by commenting out the following lines:

- **Windows** Using `::` characters:  
`start /B /D%COGNOS_DIR%\bin tcr_cogconfig.bat -s`
- **Linux** and **UNIX** Using the `#` character:  
`"$COGNOS_DIR/bin/tcr_cogconfig.sh" -s`

• Edit the `stopTCRserver` script by commenting out the following lines:

- **Windows** Using `::` characters:  
`call %COGNOS_DIR%\bin\tcr_cogconfig.bat -stop`
- **Linux** and **UNIX** Using the `#` character:  
`"$COGNOS_DIR/bin/tcr_cogconfig.sh" -stop`

10. Open the IBM Cognos Configuration as described in step 2, and edit it:

- a. In the **Explorer** navigation on the left, go to **Environment** section. **Group Properties** panel opens on the right.
- b. Go to **Gateway Settings**, and locate **Dispatcher URIs for gateway**. Click on the value field, and update it with the URI to your Tivoli Common Reporting server that is installed on a different computer, as stated in prerequisites. `http://<server_hostname>:9300/p2pd/servlet/dispatch`
- c. Save the new configuration.

11. Start the server as described in step 4.

12. Clear the cookie files in your browser before running the application.

## Results

You have migrated from a single-computer installation to a distributed installation.

## What to do next

Export and import your data.

## Importing data

Import data from the previous Tivoli Common Reporting instance to preserve them. You can also use this procedure to move data from one system to another, for example, from test to production environment provided the systems are configured in the same way.

## Procedure

1. Import the previously exported package.
2. Copy the report images to the Tivoli Common Reporting server.

## Changing ports for the Tivoli Common Reporting console

You can assign new ports to an installed Tivoli Common Reporting console.

## Procedure

1. Create a properties file containing values such as host name that match your environment. The exemplary properties file below uses default values. Modify the values to match your environment. Save the file in any location.

```
WAS_HOME=C:/ibm/tivoli/tip22
was.install.root=C:/ibm/tivoli/tip22
profileName=TIPProfile
profilePath=C:/ibm/tivoli/tipv2/profiles/TIPProfile
templatePath=C:/ibm/tivoli/tipv2/profileTemplates/default
nodeName=TIPNode
cellName=TIPCell
hostName=your_TCR_host
portsFile=C:/ibm/tivoli/tipv2/properties/TIPPortDef.properties
```
2. Edit the *TCR\_install\_dir*\properties\TIPPortDef.properties file to contain the desired port numbers.
3. Stop the Tivoli Common Reporting server by navigating to the following directory in the command-line interface:
  - **Windows** *TCR\_component\_dir*\bin, and running the stopTCRserver.bat command.
  - **UNIX** and **Linux** *TCR\_component\_dir*/bin, and running the stopTCRserver.sh.
4. In the command-line interface, navigate to the *TCR\_install\_dir*\bin directory.
5. Run the following command: ws\_ant.bat -propertyfile C:\temp\tcrwas.props -file "C:\IBM\tivoli\tipv2\profileTemplates\default\actions\updatePorts.ant" C:\temp\tcrwas.props is the path to the properties file created in Step 1.
6. Change the port numbers in IBM Cognos Configuration:
  - a. Open IBM Cognos Configuration by running *TCR\_component\_dir*\cognos\bin\tcr\_cogconfig.bat for Windows operating systems and *TCR\_install\_dir*\cognos\bin\tcr\_cogconfig.sh for Linux and UNIX.
  - b. In the **Environment** section, change the port numbers to the desired values, as in Step 2.

- c. Save your settings and close IBM Cognos Configuration.
7. Start the Tivoli Common Reporting server by navigating to the following directory in the command-line interface:
  - **Windows** `TCR_component_dir\bin`, and running the `startTCRserver.bat` command.
  - **UNIX** and **Linux** `TCR_component_dir/bin`, and running the `startTCRserver.sh`.

## Enabling Cognos Application Firewall

After installing Tivoli Common Reporting, you can optionally enable the Cognos Application Firewall.

### About this task

After installing Tivoli Common Reporting, the Cognos Application Firewall is by default disabled. You can enable and configure the firewall. To find out more about the firewall and how to enable it, visit Cognos information center.

---

## Uninstalling

You can uninstall the report components either from a GUI or in silent mode. It is also possible to remove components manually, for example if the uninstallation program was accidentally deleted or not completely installed.

**Remember:** Run the uninstallation procedure on each machine you have installed the program components on.

## Uninstalling using the uninstallation wizard

The uninstallation program guides you through the uninstallation procedure in graphical user interface.

### Procedure

1. From the program directory
  - **Windows** Go to **Start** → **All Programs** → **Tivoli Common Reporting 2.1.1**, and choose the **Uninstall** option.
  - **Linux** and **UNIX** `TCR_product_dir/_uninst/TIPInstall121` run the `uninstall.sh` file.

**Important:** If you have installed Tivoli Common Reporting in silent mode, you need to add the `-i` parameter with the `gui` argument to invoke the installer in GUI mode.

Tivoli Common Reporting uninstaller is launched.

2. Read the information, and click **Next**.
3. Type in a password for the administrative user created upon installation, and click **Uninstall**.

**Tip:** You do not need to provide this information if you are uninstalling the Cognos-based Tivoli Common Reporting engine component. Also, you will not be asked for password if WebSphere Application Server has been stopped. If you forgot your password, you can kill WebSphere Application Server process first, then run the uninstallation. You will not be asked for the password.

The uninstallation process is now started, and will take a moment to remove the Tivoli Common Reporting from your file system.

4. **Windows** (Recommended) Restart your computer.

## What to do next

Check the uninstallation process by going through the verification steps.

## Uninstalling using the console mode

Use the console uninstallation method to uninstall IBM Tivoli Common Reporting from a command line.

### Procedure

1. At a command prompt, navigate to the `/_uninst/TIPInstall21` subdirectory of the IBM Tivoli Common Reporting installation directory.
2. Run the **uninstall** command, specifying console mode:

- **Windows**  
`uninstal.exe -i console`
- **Linux** and **UNIX**  
`uninstall.sh -i console`

3. Follow the displayed instructions to complete the uninstallation. You will need to provide a user ID and password with the `tipadmin` role (typically the same user ID you used to install IBM Tivoli Common Reporting ).

**Tip:** You will not be asked for password if WebSphere Application Server has been stopped. If you forgot your password, you can kill WebSphere Application Server process first, and then run the uninstallation. Your password will not be required.

## Uninstalling using the silent mode

Use the silent uninstallation procedure for unattended uninstallation. It can be performed with the use of a response file. You can choose the silent mode of uninstallation by using *silent* argument for the `-i` parameter.

### Procedure

1. From the following location `TCR_component_dir/_uninst/TIPInstall21`, open, and edit the `TCR_sample_response_uninstall.txt` file with the user ID and password:

**Tip:** You will not be asked for password if WebSphere Application Server has been stopped. If you forgot your password, you can kill WebSphere Application Server process first, and then run the uninstallation. Your password will not be required.

```
##### {COPYRIGHT-TOP} ###
# OCO Source Materials
# 5724-T69
#
# © Copyright IBM Corp. 2011
#
# The source code for this program is not published or otherwise
# divested of its trade secrets, irrespective of what has been
# deposited with the U.S. Copyright Office.
##### {COPYRIGHT-END} ###
#####
```

```

##
## InstallAnywhere variables to configure the installation of Tivoli
## Common Reporting for Asset and Performance Management
##
## Usage: uninstall[.sh|.exe] -f<full path to this file> -i<installation mode>
##         available modes: silent
##                           console
##                           gui
##
## On Windows, uninstall.exe will return immediately. To avoid
## this, you should wrap the uninstall.exe command in a batch
## file.
##
## # sign is used here to comment out the lines that follow it
##
#####

#----
#---- Enter a WebSphere Application Server password.
#---- If the password is not provided, the uninstaller will fail.
IAGLOBAL_WASUserID=tipadmin
IAGLOBAL_WASPassword=

```

Save the file.

2. Evoke the silent uninstallation from a command-line interface by:
  - **Windows** navigating to *TCR\_install\_dir\\_uninst\TIPInstall121*, and running the *uninstall.exe -i silent -f TCR\_install\_dir\\_uninst\TIPInstall121\TCR\_sample\_response\_uninstall.txt* command.
  - **Linux** and **UNIX** navigating to */TCR\_install\_dir/\_uninst/TIPInstall121*, and running the *uninstall -i silent -f TCR\_install\_dir/\_uninst/TIPInstall121/TCR\_sample\_response\_uninstall.txt* command.

**Important:** Provide the full path to the response file in your command.

## Results

You have now uninstalled Tivoli Common Reporting without any user interaction. You can verify the uninstallation procedure by going through the verification steps.

## Uninstalling manually

In most cases, you should follow one of the other choices for uninstalling Tivoli Common Reporting. However, if the uninstallation program is not present or if an aborted installation did not create a complete and functional uninstallation program, you can manually uninstall the product. Follow this procedure only on the machine where Tivoli Common Reporting Server was installed.

### About this task

The manual uninstallation should only be performed when none of the standard uninstallation methods are possible.

### Procedure

1. Stop the Tivoli Common Reporting Server by navigating to the following directory in the command-line interface:
  - **Windows** *cd TCR\_component\_dir\bin*, and running the *stopTCRserver.bat* command.



- **Linux** and **UNIX** `TCR_component_dir/bin`, and running the `stopTCRserver.sh`.

**Note:** If the server does not stop, terminate Tivoli Common Reporting processes.

2. Remove the Deployment Engine by navigating to the following directory in the command-line interface:

**CAUTION:**

**Removing this component if you have other Tivoli Common Reporting or Tivoli Integrated Portal instances installed on your computer will prevent you from performing upgrades. If you have other programs that use the Deployment Engine, they may not work properly after removing it. In this case, see: Uninstalling the Deployment Engine.**

**Windows**

- a. Open the command-line interface, and source the DE environment by evoking `C:\%Program Files%\IBM\Common\acsi\setenv.cmd`.
- b. Uninstall DE - `C:\%Program Files%\IBM\Common\acsi\bin\si_inst.bat -r -f`.

**Note:** The command might fail if a DE operation ends abnormally. In such case, go to `DE_install_dir\acsi\logs` and delete all files whose filenames begin with `.lock`.

- c. Remove database backup - `rmdir /s C:\%Program Files%\IBM\Common\acsi`.

**Linux** and **UNIX**

**Note:** For a non-root user Deployment Engine is located at `<USER_HOME_DIR>/acsi*`. Follow the same steps modifying your file paths.

- a. Source the DE environment by evoking the following command `/var/ibm/common/acsi/setenv.sh`.

**Important:** Make sure you include the `.` (dot and space) characters when running the command.

- b. Uninstall DE - `/usr/ibm/common/acsi/bin/si_inst.sh -r -f`.

**Note:** The `-r -f` command might fail if a DE operation ends abnormally. In such case, go to `DE_install_dir\acsi\logs` and delete all files whose filenames begin with `.lock`.

3. **Windows** Remove the registered services by following the steps:
  - a. Open **Control Panel** → **Administrative Tools** → **Services**, and find the following services:
    - Tivoli Integrated Portal - TIPProfile\_Port\_XXX service
    - Any IBM Cognos Content Database service.
  - b. Right-click on the service, and choose **Properties**.
  - c. Copy the property name enclosed in parentheses, for example "IBM WAS70Service - TIPProfile\_Port\_16310", and "IBM Cognos Content Database", and "IBM Cognos 8".
  - d. Open the command-line interface, and run the following command: `sc delete "IBM WAS70Service - TIPProfile_Port_16310", and sc delete "IBM Cognos Content Database", and sc delete "IBM Cognos 8".`

4. In the file system, manually remove the program installation directory. Do not remove the Tivoli Integrated Portal directory, if you were reusing an existing version of Tivoli Integrated Portal for your Tivoli Common Reporting installation:
  - **Windows** `TIP_components_dir` and `TIP_install_dir\tipv2`
  - **Linux** and **UNIX** `TIP_components_dir` and `TIP_install_dir/tipv2`
5. **Windows** Remove the shortcuts from menu **Start**. Right-click the **Tivoli Common Reporting** in the menu, and select to delete it.
6. **Windows** (Recommended) Restart your computer.

## Results

You have now finished performing manual cleanup of your environment.

## Verifying the uninstallation

Verify the uninstallation procedure after you have performed the procedure using the graphical user interface, console or silent mode.

### Procedure

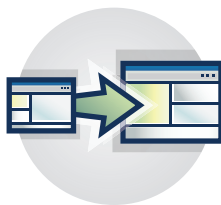
1. Check that the Tivoli Common Reporting installation directories are empty.
2. **Windows** Check if there are any services registered for the program by opening **Control Panel** → **Administrative Tools** → **Services**, and searching for Tivoli Integrated Portal - TIPProfile\_Port\_XXX service.
3. If the Deployment Engine registry contained other components than Tivoli Common Reporting, verify that there are no entries related to Tivoli Common Reporting in the Deployment Engine registry, by listing the existing components:
  - **Windows** `C:\%Program Files%\IBM\Common\acsi\bin\listIU.cmd`
  - **Linux** and **UNIX** `/usr/ibm/common/acsi/bin/listIU.sh`
4. If your Tivoli Common Reporting instance was the only component in Deployment Engine registry, verify if the Deployment Engine has been removed completely.
5. **Windows** Verify that there is no Tivoli Common Reporting entry in menu **Start**.

### What to do next

If any of the items were not removed correctly by the uninstallation procedure, uninstall the program manually.

---

## Chapter 3. Upgrading to Tivoli Common Reporting version 2.1.1



You can upgrade your instance of Tivoli Common Reporting to version 2.1.1. Three upgrade scenarios are available, depending on your needs:

- Single-computer scenario
- Distributed scenario
- Upgrading from package

---

### Preparing to upgrade

Before upgrading, review this section to learn about hardware requirements and other considerations.

#### Basic upgrade information

You can upgrade to Tivoli Common Reporting version 2.1.1 from the following versions:

- Tivoli Common Reporting 1.1.1
- Tivoli Common Reporting 1.2.0
- Tivoli Common Reporting 1.2.0.1
- Tivoli Common Reporting 1.3
- Tivoli Common Reporting 2.1

There are two upgrade scenarios available, one for single-computer and one for distributed upgrade scenarios. With versions 1.1.1 and 1.2.x, distributed upgrade is a manual procedure in which you migrate a single-computer installation to a distributed one.

If you are upgrading from Tivoli Common Reporting 2.1, the 2.1.1 version upgrades it together with its components, such as Tivoli Integrated Portal, which is upgraded from version 2.1 to version 2.2, and Cognos 8 Business Intelligence Reporting, which is upgraded from version 8.4.1 to version 8.4.1, fix pack 3. If you are upgrading from version 2.1, the upgrade process does not change the port numbers or file paths. For versions older than 2.1, the upgrade is a side-by-side process in result of which you have two instances of Tivoli Common Reporting, the 2.1.1 version and the older version, on your system. To keep only the newest version of Tivoli Common Reporting on your computer, uninstall the older version.

Tivoli Common Reporting, version 2.1.1 introduces a 64-bit installer. However, you cannot use this installer to upgrade a previous version of Tivoli Common Reporting because of the discrepancy in bitness.

Users and groups are not migrated because they are usually stored in LDAP. You can use the `TIPProfile\upgrade\bin\exportLDAPconfig.bat` file to export the LDAP settings. The installer creates `tipadmin` as the default user present before and after upgrade.

JNDI data sources are not migrated. You must recreate them manually after upgrade.

## Upgrade modes

There are two upgrade modes that you can select from:

- Upgrading from the existing instance of Tivoli Common Reporting. Choose this upgrade mode if you have 4 GB of available main memory.
- Upgrading from the package, which allows you to upgrade your Tivoli Common Reporting instance on a different computer than the one on which it is installed, by using a previously generated package. This upgrade mode requires 2 GB of available memory.




---

## Upgrading on a single computer

Choose this scenario to upgrade Tivoli Common Reporting version 1.1.1 and 1.2. For versions 1.3 and 2.1, this method is suitable if your existing installation is on a single computer. You can upgrade interactively with the installation wizard as a single point of reference for the whole upgrade process, or in silent mode, which does not require any interaction on your part.

### Before you begin

Ensure that you have completed the following tasks:

- Ensure that you know the administrative user login and password
- If you are upgrading from Tivoli Common Reporting version 1.3 or 2.1, ensure that all your report images are in the *TCR\_install\_dir/profiles/TIPProfile/installedApps/TIPCell/IBM Cognos 8.ear/p2pd.war/tivoli* directory, because only this directory is moved over to version 2.1.1.
- If you are upgrading from version 1.3 and you have LDAP configured to connect directly with Cognos, enable anonymous access from VMMPProvider:
  1. Open the IBM Cognos configuration by running:
    -  **Start** → **All Programs** → **Tivoli Common Reporting** → **IBM Cognos Configuration**
    -   *TIP\_install\_dir/tipv2/products/tcr/Cognos/c8/bin/tcr\_cogconfig.sh*
  2. Select **Security** → **Authentication** → **Cognos** in the navigation on the left, and edit the **Allow anonymous access?** field changing it to **True**.
  3. Save your configuration and restart the Tivoli Common Reporting server.

#### CAUTION:

Enabling anonymous access makes Cognos open for anonymous connections without any authentication. It is recommended that you upgrade in maintenance mode and secure access to Cognos with a firewall.

### About this task

When upgrading from Tivoli Common Reporting version 2.1, Tivoli Integrated Portal is not upgraded. You can manually upgrade Tivoli Integrated Portal to version 2.2.

## Procedure

1. Start the upgrade by following steps 1 to 4 in Tivoli Common Reporting installation instructions.
2. Choose to **upgrade the existing Tivoli Common Reporting instance**.
3. Choose **Single computer installation** as the upgrade scenario.
4. Select the installation directory and the existing instance of Tivoli Common Reporting to be upgraded.
5. Provide the administrative user credentials.
6. Specify the administrative user credentials that you used to log in to the previous version of Tivoli Integrated Portal and the port number that you want to use to create Tivoli Integrated Portal profile.
7. On the IBM Cognos Content Database panel, provide the port number for IBM Cognos Content database. The default port number is 1527.

**Remember:** The ports you select must be free and must be different from the ports used by the previous Tivoli Common Reporting instance. The default Tivoli Integrated Portal port numbers are the same as the default port numbers in Tivoli Common Reporting version 1.3. When upgrading, these port numbers must differ.

8. Decide whether you want to import report snapshots.

**Attention:** Importing report snapshots may take a while, especially if there are many BIRT reports in your infrastructure, because each BIRT snapshot is run and exported into a PDF file.

9. Confirm your choices to begin the upgrade process. No more action is required on your part.

## Results

You have upgraded to Tivoli Common Reporting, version 2.1.1 and the following data was imported:

- Database drivers
- Report snapshots were generated to PDF format and saved as saved reports.
- Cognos Content Store was migrated from the embedded derby database. If your Content Store was located on an external database instead of on the embedded derby, the same database is used by the new instance of Tivoli Common Reporting.

## What to do next

1. If you want to use LDAP as your user repository, configure it again. LDAP configuration is not automatically transferred to the upgraded instance of Tivoli Common Reporting. A file with LDAP information exported from the previous version of Tivoli Common Reporting is in *TCR\_component\_dir/logs/upgrade/repository Id.properties*. If you upgraded from Tivoli Common Reporting version 1.3 or 2.1, configure LDAP in Tivoli Integrated Portal only.
2. Create new schedules for your reports. Report schedules that are created for versions of Tivoli Common Reporting versions earlier than 2.1 are not mapped to Cognos scheduler.
3. “Configuring JDBC data sources using JNDI” on page 97 the same way as you configured them for the Tivoli Common Reporting version that you previously used. JNDI data sources are not transferred during the upgrade process.
4. Verify that all your report images have been moved.

5. Log in to the Tivoli Integrated Portal console and check whether all your reports appear in the **Common Reporting** → **Connection** view. Try to run a sample report to check whether it is working properly.
6. If you decided to import report snapshots, ensure that the snapshot appears as **Run history** of the report for which it was generated.
7. Disable anonymous access from VMMProvider:
  - a. Open the IBM Cognos configuration by running:
    - **Windows** **Start** → **All Programs** → **Tivoli Common Reporting** → **IBM Cognos Configuration**
    - **Linux** **UNIX** User interface: *TCR\_component\_dir/cognos/bin/tcr\_cogconfig.sh*, reporting engine: *TCR\_install\_dir/cognos/bin/tcr\_cogconfig.sh*
  - b. Select **Security** → **Authentication** → **Cognos** in the navigation on the left, and edit the **Allow anonymous access?** field changing it to **False**.
  - c. Save your configuration and restart the Tivoli Common Reporting server.

---

## Upgrading distributed environment

Select this scenario to upgrade Tivoli Common Reporting versions 1.3 or 2.1 installed in distributed environment to version 2.1.1. You can upgrade interactively with the installation wizard as a single point of reference for the whole upgrade process, or in silent mode which does not require any interaction on your part.

### Before you begin

Ensure that you have completed the following tasks:

- Ensure that you know the administrative user login and password
- If you are upgrading from Tivoli Common Reporting version 1.3 or 2.1, ensure that all your report images are in the *TCR\_install\_dir/profiles/TIPProfile/installedApps/TIPCell/IBM Cognos 8.ear/p2pd.war/tivoli* directory, because only this directory is moved over to version 2.1.1.
- If you are upgrading from version 1.3 and you have LDAP configured to connect directly with Cognos, enable anonymous access from VMMProvider:
  1. Open the IBM Cognos configuration by running:
    - **Windows** **Start** → **All Programs** → **Tivoli Common Reporting** → **IBM Cognos Configuration**
    - **Linux** **UNIX** *TIP\_install\_dir/tipv2/products/tcr/Cognos/c8/bin/tcr\_cogconfig.sh*
  2. Select **Security** → **Authentication** → **Cognos** in the navigation on the left, and edit the **Allow anonymous access?** field changing it to **True**.
  3. Save your configuration and restart the Tivoli Common Reporting server.

#### CAUTION:

**Enabling anonymous access makes Cognos open for anonymous connections without any authentication. It is recommended that you upgrade in maintenance mode and secure access to Cognos with a firewall.**

•

**Note:** If LDAP was configured for version 1.3 or 2.1, after the upgrade, Tivoli Common Reporting 2.1.1 command line is only able to authenticate users from LDAP.

## About this task

When upgrading from Tivoli Common Reporting version 2.1, Tivoli Integrated Portal is not upgraded. You can upgrade Tivoli Integrated Portal to version 2.2 manually.

## Procedure

1. Upgrade Tivoli Common Reporting engine.
2. Upgrade Tivoli Common Reporting user interface.
3. Confirm your choices to finish the upgrade.

## Results

You have upgraded to Tivoli Common Reporting, version 2.1.1 and the following data was imported:

- Database drivers
- Report snapshots were generated to PDF format and saved as saved reports.
- Cognos Content Store was migrated from the embedded derby database. If your Content Store was located on an external database instead of on the embedded derby, the same database is used by the new instance of Tivoli Common Reporting.

## What to do next

1. If you want to use LDAP as your user repository, configure it again. LDAP configuration is not automatically transferred to the upgraded instance of Tivoli Common Reporting. A file with LDAP information exported from the previous version of Tivoli Common Reporting is in *TCR\_component\_dir/logs/upgrade/repository Id.properties*. If you upgraded from Tivoli Common Reporting version 1.3 or 2.1, configure LDAP in Tivoli Integrated Portal only.
2. Create new schedules for your reports. Report schedules that are created for versions of Tivoli Common Reporting versions earlier than 2.1 are not mapped to Cognos scheduler.
3. “Configuring JDBC data sources using JNDI” on page 97 the same way as you configured them for the Tivoli Common Reporting version that you previously used. JNDI data sources are not transferred during the upgrade process.
4. Verify that all your report images have been moved.
5. Log in to the Tivoli Integrated Portal console and check whether all your reports appear in the **Common Reporting** → **Connection** view. Try to run a sample report to check whether it is working properly.
6. If you decided to import report snapshots, ensure that the snapshot appears as **Run history** of the report for which it was generated.
7. Disable anonymous access from VMMProvider:
  - a. Open the IBM Cognos configuration by running:
    - **Windows** **Start** → **All Programs** → **Tivoli Common Reporting** → **IBM Cognos Configuration**
    - **Linux** **UNIX** User interface: *TCR\_component\_dir/cognos/bin/tcr\_cogconfig.sh*, reporting engine: *TCR\_install\_dir/cognos/bin/tcr\_cogconfig.sh*
  - b. Select **Security** → **Authentication** → **Cognos** in the navigation on the left, and edit the **Allow anonymous access?** field changing it to **False**.
  - c. Save your configuration and restart the Tivoli Common Reporting server.



## Upgrading Tivoli Common Reporting engine

Upgrade your Tivoli Common Reporting versions 1.3 or 2.1 instance to 2.1.1. The reporting engine must be upgraded before the user interface is upgraded.

### Before you begin

Enable anonymous access to the reporting engine:

1. Open the IBM Cognos **Configuration** by running:
  - **Windows** **Start** → **All Programs** → **Tivoli Common Reporting** → **IBM Cognos Configuration**
  - **Linux** **UNIX** `TCR_install_dir/tip/products/tcr/Cognos/c8/bin/tcr_cogconfig.sh`
2. Select **Security** → **Authentication** → **Cognos** in the navigation on the left, and edit the **Allow anonymous access?** field, changing it to **True**.
3. Save your configuration and restart the reporting engine.

### About this task

Perform this task on the computer where Tivoli Common Reporting engine is installed.

### Procedure

1. Start the upgrade by following steps 1 to 4 and 6 to 8 in Tivoli Common Reporting installation instructions.
2. Choose **Upgrade the existing instance of Tivoli Common Reporting** and select **Distributed installation** as your upgrade scenario.
3. Select **Install the Tivoli Common Reporting engine**.
4. Choose the existing Tivoli Common Reporting installation directory as the base for upgrade.
5. Provide the port number that is to be used for Cognos database. The port number must be different than the default port (1527).
6. Confirm your choices. The upgrade runs in the background.

### What to do next

Upgrade the user interface.

## Upgrading Tivoli Common Reporting user interface

Upgrade your Tivoli Common Reporting user interface to finish the upgrade process.

### About this task

For this task, you need the administrative user login and password. Perform this task on the computer where the Tivoli Common Reporting user interface instance is installed.

### Procedure

1. Start the upgrade process by performing steps 1 to 4 in the installation instructions.



2. Select the upgrade option and choose the existing Tivoli Common Reporting user interface as the base for the upgrade.
3. Choose **Distributed installation** as your installation scenario, and select to **Install the Tivoli Common Reporting user interface**.
4. Select the existing instance that you want to upgrade and confirm your choices.
5. Provide the user credentials and port number that will be used to create the Tivoli Integrated Portal profile.
6. Provide the administrative user credentials that you used to log in to the previous version of Tivoli Common Reporting.
7. Confirm your choices. The upgrade process runs in the background.

---

## Upgrading with the use of a package

To upgrade across computers, you can upgrade your Tivoli Integrated Portal instance on a computer different than the one on which the existing version is installed. It also requires less free memory than the wizard upgrade mode.

### About this task

To upgrade in this mode, you need 2 GB of available memory. You can upgrade in this mode in both single-computer and distributed scenarios, but the distributed scenario is available for versions 1.3 and 2.1 only. When upgrading from Tivoli Common Reporting version 2.1, Tivoli Integrated Portal is not upgraded. You can upgrade Tivoli Integrated Portal to version 2.2 manually.

## Upgrading using a package in single-computer scenario

Generate a package that contains all the data from your existing Tivoli Common Reporting instance and upgrade to a higher version.

### Before you begin

- Ensure that you know the administrative user login and password
- If you are upgrading from Tivoli Common Reporting version 1.3 or 2.1, ensure that all your report images are in the *TCR\_install\_dir/profiles/TIPProfile/installedApps/TIPCell/IBM Cognos 8.ear/p2pd.war/tivoli* directory, because only this directory is moved over to version 2.1.1.
- If you are upgrading from version 1.3 and you have LDAP configured to connect directly with Cognos, enable anonymous access from VMMPProvider:
  1. Open the IBM Cognos configuration by running:
    - **Windows** **Start** → **All Programs** → **Tivoli Common Reporting** → **IBM Cognos Configuration**
    - **Linux** **UNIX** *TIP\_install\_dir/tipv2/products/tcr/Cognos/c8/bin/tcr\_cogconfig.sh*
  2. Select **Security** → **Authentication** → **Cognos** in the navigation on the left, and edit the **Allow anonymous access?** field changing it to **True**.
  3. Save your configuration and restart the Tivoli Common Reporting server.

### CAUTION:

Enabling anonymous access makes Cognos open for anonymous connections without any authentication. It is recommended that you upgrade in maintenance mode and secure access to Cognos with a firewall.

## About this task

Perform this task as an administrative user.

### Procedure

1. Create the package with Tivoli Common Reporting data:
  - a. Copy the following .zip files from Tivoli Common Reporting 2.1.1 to the computer where previous version of Tivoli Common Reporting is installed:
    - TCRInstaller/COI/PackageSteps/TIPCore/FILES/tipUpgradeUtil.zip
    - TCRInstaller/COI/PackageSteps/TCRCore/FILES/tcr/TCRPlugins.zip
  - b. Extract the files you have just copied:
    - If you are upgrading from version 2.1, 1.3 or 1.2, extract TCRInstaller/COI/PackageSteps/TIPCore/FILES/tipUpgradeUtil.zip and TCRInstaller/COI/PackageSteps/TCRCore/FILES/tcr/TCRPlugins.zip to the *TCR\_install\_dir*/profiles/TIPProfile folder of your existing Tivoli Common Reporting instance, prior to version 2.1.1.
    - If you are upgrading from version 1.1.1, extract TCRInstaller/COI/PackageSteps/TCRCore/FILES/tcr/TCRPlugins.zip to the *TCR\_install\_dir* of your existing Tivoli Common Reporting instance, prior to version 2.1.1.

**Important:** On non-Windows platforms, run the following command to add run permissions for all upgrade scripts:

```
chmod +x existing_TCR_install_dir/profiles/TIPProfile/upgrade/bin/*.sh
```

- c. Run the following command to finish creating the package:
  - For Tivoli Common Reporting versions 2.1, 1.3 and 1.2 single-computer installation:

Windows

```
existing_TCR_install_dir\profiles\TIPProfile\upgrade\bin\preupgrade.bat  
existing_TCR_install_dir --username username --password password --productId TCR
```

UNIX

Linux

```
existing_TCR_install_dir/profiles/TIPProfile/upgrade/bin/preupgrade.sh  
existing_TCR_install_dir --username username --password password --productId TCR
```

- For Tivoli Common Reporting version 1.1.1:

Windows

```
existing_TCR_install_dir\upgrade\bin\tcrUpgrade.bat  
existing_TCR_install_dir\upgrade  
java_home_dir  
-operation export -username username -password password  
-location existing_TCR_install_dir  
[-customPropertiesFile existing_TCR_install_dir\upgrade\plugins\tcrCustomProperties.properties]
```

UNIX

Linux

```
existing_TCR_install_dir/upgrade/bin/tcrUpgrade.sh  
existing_TCR_install_dir/upgrade  
java_home_dir  
-operation export -username username -password password  
-location existing_TCR_install_dir  
[-customPropertiesFile existing_TCR_install_dir/upgrade/plugins/tcrCustomProperties.properties]
```

- For Tivoli Common Reporting 2.1, 1.3 and 1.2 installed as a separate product:

#### Windows

```
existing_TCR_install_dir\profiles\TIPProfile\upgrade\bin\preupgrade.bat  
--username username --password password --productId TCR
```

#### UNIX

#### Linux

```
existing_TCR_install_dir/profiles/TIPProfile/upgrade/bin/preupgrade.sh  
--username username --password password --productId TCR
```

The package is created in the following location:

- For versions 1.2, 1.3, and 2.1: *existing\_TCR\_install\_dir/profiles/TIPProfile/upgrade/data/upgradeData.zip*
- For version 1.1.1: *existing\_TCR\_install\_dir/upgrade/data/upgradeData.zip*

2. Perform steps 1 to 4 of installation instructions.
3. Select **Upgrade Tivoli Common Reporting from the package** as the installation mode.
4. Choose **Single-computer installation** as the upgrade scenario.
5. Choose the installation directory and provide the location of the package.
6. Enter the user ID and password that you use to log into Tivoli Integrated Portal console.
7. Provide the port number for IBM Cognos content database.
8. Read the summary panel and click **Install**.

## Results

You have upgraded to Tivoli Common Reporting, version 2.1.1 and the following data was imported:

- Database drivers
- Report snapshots were generated to PDF format and saved as saved reports.
- Cognos Content Store was migrated from the embedded derby database. If your Content Store was located on an external database instead of on the embedded derby, the same database is used by the new instance of Tivoli Common Reporting.

## What to do next

1. If you want to use LDAP as your user repository, configure it again. LDAP configuration is not automatically transferred to the upgraded instance of Tivoli Common Reporting. A file with LDAP information exported from the previous version of Tivoli Common Reporting is in *TCR\_component\_dir/logs/upgrade/repository Id.properties*. If you upgraded from Tivoli Common Reporting version 1.3 or 2.1, configure LDAP in Tivoli Integrated Portal only.
2. Create new schedules for your reports. Report schedules that are created for versions of Tivoli Common Reporting versions earlier than 2.1 are not mapped to Cognos scheduler.
3. “Configuring JDBC data sources using JNDI” on page 97 the same way as you configured them for the Tivoli Common Reporting version that you previously used. JNDI data sources are not transferred during the upgrade process.
4. Verify that all your report images have been moved.
5. Log in to the Tivoli Integrated Portal console and check whether all your reports appear in the **Common Reporting** → **Connection** view. Try to run a sample report to check whether it is working properly.

6. If you decided to import report snapshots, ensure that the snapshot appears as **Run history** of the report for which it was generated.
7. Disable anonymous access from VMMProvider:
  - a. Open the IBM Cognos configuration by running:
    - **Windows** **Start** → **All Programs** → **Tivoli Common Reporting** → **IBM Cognos Configuration**
    - **Linux** **UNIX** User interface: *TCR\_component\_dir/cognos/bin/tcr\_cogconfig.sh*, reporting engine: *TCR\_install\_dir/cognos/bin/tcr\_cogconfig.sh*
  - b. Select **Security** → **Authentication** → **Cognos** in the navigation on the left, and edit the **Allow anonymous access?** field changing it to **False**.
  - c. Save your configuration and restart the Tivoli Common Reporting server.

## Upgrading with the use of a package in distributed scenario

Upgrade the reporting engine and user interface to Tivoli Common Reporting 2.1.1. The distributed upgrade scenario is available for Tivoli Common Reporting versions 2.1 and 1.3 only.

### Before you begin

- Ensure that you know the administrative user login and password
- If you are upgrading from Tivoli Common Reporting version 1.3 or 2.1, ensure that all your report images are in the *TCR\_install\_dir/profiles/TIPProfile/installedApps/TIPCell/IBM Cognos 8.ear/p2pd.war/tivoli* directory, because only this directory is moved over to version 2.1.1.

### Procedure

1. Upgrade the reporting engine.
2. Upgrade the user interface.

### Results

You have upgraded to Tivoli Common Reporting, version 2.1.1 and the following data was imported:

- Database drivers
- Report snapshots were generated to PDF format and saved as saved reports.
- Cognos Content Store was migrated from the embedded derby database. If your Content Store was located on an external database instead of on the embedded derby, the same database is used by the new instance of Tivoli Common Reporting.

### What to do next

1. If you want to use LDAP as your user repository, configure it again. LDAP configuration is not automatically transferred to the upgraded instance of Tivoli Common Reporting. A file with LDAP information exported from the previous version of Tivoli Common Reporting is in *TCR\_component\_dir/logs/upgrade/repository Id.properties*. If you upgraded from Tivoli Common Reporting version 1.3 or 2.1, configure LDAP in Tivoli Integrated Portal only.
2. Create new schedules for your reports. Report schedules that are created for versions of Tivoli Common Reporting versions earlier than 2.1 are not mapped to Cognos scheduler.

3. “Configuring JDBC data sources using JNDI” on page 97 the same way as you configured them for the Tivoli Common Reporting version that you previously used. JNDI data sources are not transferred during the upgrade process.
4. Verify that all your report images have been moved.
5. Log in to the Tivoli Integrated Portal console and check whether all your reports appear in the **Common Reporting** → **Connection** view. Try to run a sample report to check whether it is working properly.
6. If you decided to import report snapshots, ensure that the snapshot appears as **Run history** of the report for which it was generated.
7. Disable anonymous access from VMMProvider:
  - a. Open the IBM Cognos configuration by running:
    - **Windows** **Start** → **All Programs** → **Tivoli Common Reporting** → **IBM Cognos Configuration**
    - **Linux** **UNIX** User interface: *TCR\_component\_dir/cognos/bin/tcr\_cogconfig.sh*, reporting engine: *TCR\_install\_dir/cognos/bin/tcr\_cogconfig.sh*
  - b. Select **Security** → **Authentication** → **Cognos** in the navigation on the left, and edit the **Allow anonymous access?** field changing it to **False**.
  - c. Save your configuration and restart the Tivoli Common Reporting server.

## Upgrading the reporting engine using a package

Perform the first part of the upgrade process with the use of a previously generated package that contains all the data from your existing Tivoli Common Reporting instance.

### Before you begin

Enable anonymous access to the reporting engine:

1. Open the IBM Cognos **Configuration** by running:
  - **Windows** **Start** → **All Programs** → **Tivoli Common Reporting** → **IBM Cognos Configuration**
  - **UNIX** **Linux** *TIP\_install\_dir/products/tcr/Cognos/c8/bin/tcr\_cogconfig.sh*
2. Select **Security** → **Authentication** → **Cognos** and edit the **Allow anonymous access?** field changing it to **True**.
3. Save your configuration and restart the reporting engine.

### Procedure

1. Create the package with Tivoli Common Reporting data:
  - a. From the Tivoli Common Reporting 2.1.1 installation media, extract the *TCRInstaller/COI/PackageSteps/TCRCORE/FILES/tcr/TCRPlugins.zip* to the *TCR\_install\_dir* of your existing Tivoli Common Reporting instance, prior to version 2.1.1.

**Important:** On non-Windows platforms, run the following command to add run permissions for all upgrade scripts:

```
chmod +x existing_TCR_install_dir/profiles/TIPProfile/upgrade/bin/*.sh
```

- b. Run the following command:

**Windows**

```
reporting_engine_install_dir\upgrade\bin\tcrUpgrade.bat
reporting_engine_install_dir\upgrade java_home_dir
-operation export -location reporting_engine_install_dir
-output reporting_engine_install_dir\upgrade\output
[-customPropertiesFile reporting_engine_install_dir\upgrade\plugins\tcrCustomProperties.properties]
```

UNIX

Linux

```
reporting_engine_install_dir/upgrade/bin/tcrUpgrade.sh
reporting_engine_install_dir/upgrade java_home_dir
-operation export -location reporting_engine_install_dir
-output reporting_engine_install_dir/upgrade/output
-[customPropertiesFile reporting_engine_install_dir/upgrade/plugins/tcrCustomProperties.properties]
```

The package is created in the *existing\_TCR\_install\_dir/upgrade/data/upgradeData.zip* folder.

2. Repeat steps 2 to 8 in “Upgrading using a package in single-computer scenario” on page 51.

## What to do next

1. Disable anonymous access from VMMProvider:
  - a. Open the IBM Cognos configuration by running:
    - **Windows** **Start** → **All Programs** → **Tivoli Common Reporting** → **IBM Cognos Configuration**
    - **Linux** **UNIX** user interface: *TCR\_component\_dir/cognos/bin/tcr\_cogconfig.sh*, reporting engine: *TCR\_component\_dir/cognos/bin/tcr\_cogconfig.sh*
  2. Upgrade the user interface.

## Upgrading user interface using a package

Finish the upgrade procedure by upgrading the Tivoli Common Reporting user interface.

## Procedure

1. Create the package with Tivoli Common Reporting data:
  - a. From the Tivoli Common Reporting 2.1.1 installation media, extract the *TCRInstaller/COI/PackageSteps/TCRCORE/FILES/tcr/TCRPlugins.zip* to the *TCR\_install\_dir* of your existing Tivoli Common Reporting instance, prior to version 2.1.1.

**Important:** On non-Windows platforms, run the following command to add run permissions for all upgrade scripts:

```
chmod +x existing_TCR_install_dir/profiles/TIPProfile/upgrade/bin/*.sh
```

- b. Run the following command:

Windows

```
existing_TCR_install_dir\profiles\TIPProfile\upgrade\bin\preupgrade.bat
--username username --password password --productid TCR
```

UNIX

Linux

```
existing_TCR_install_dir/profiles/TIPProfile/upgrade/bin/preupgrade.sh
--username username --password password --productid TCR
```

The package is created in the *existing\_TCR\_install\_dir/upgrade/data/upgradeData.zip* folder.

2. Repeat steps 1 to 8 in “Upgrading using a package in single-computer scenario” on page 51.
3. When the user interface has been updated, copy the package to the reporting engine.

### What to do next

You must manually move the upgrade package from the user interface to the reporting engine that you previously upgraded. The post-upgrade panel informs you where a package with all the data was stored (*TCR\_ui\_install\_dir/profiles/TIPProfile/upgrade/data/upgradeData.zip*). Make a note of the package location and copy the *upgradeData.zip* package to the computer where the reporting engine is installed. Use the *tcrUpgrade.bat* (Windows) or *tcrUpgrade.sh* (Linux) located in the *TCR\_install\_dir/upgrade/bin* directory to import the package to the previously upgraded Tivoli Common Reporting engine. Use the following command to import the package to the computer with the reporting user interface installed:

```
tcrUpgrade.sh upgrade_directory_location java_home_directory  
-operation import -location reporting_engine_path  
-upgradeDataFile upgradeData.zip_location
```

#### upgrade\_directory\_location

For Tivoli Integrated Portal-based Tivoli Common Reporting, version prior to 2.1.1, the directory is: *TCR\_install\_dir/profiles/TIPProfile/upgrade*, and for version 2.1: *TCR\_component\_dir/integration*. For non-Tivoli Integrated Portal-based (such as Tivoli Common Reporting 2.1 reporting engine), the directory is *TCR\_install\_dir/upgrade*.

---

## Upgrading with external Cognos

Upgrade Tivoli Common Reporting to version 2.1.1 using the existing Cognos instance.

### Before you begin

Ensure that you have done the following tasks:

- Prepare administrative user login and password

Perform the following steps to upgrade your Tivoli Common Reporting instance to version 2.1.1:

### About this task

When upgrading from Tivoli Common Reporting version 2.1, Tivoli Integrated Portal is not upgraded. You can upgrade it manually to version 2.2.

### Procedure

1. Start the upgrade by following steps 1 to 4 in Tivoli Common Reporting installation instructions.
2. Select to **Upgrade the existing Tivoli Common Reporting instance**.
3. Choose **Integrate the existing Cognos BI infrastructure** as the upgrade scenario.
4. Select the installation directory and the existing instance of Tivoli Common Reporting to be upgraded.



5. Specify the administrative user credentials that you used to log in to the previous version of Tivoli Integrated Portal and the port number that you want to use. The port number must be different than the one you used for installation of the previous version of Tivoli Common Reporting.
6. Provide the URL to the existing Cognos instance.
7. On the IBM Cognos Content Database panel, provide the port number for IBM Cognos Content database. The default port number is 1527.
8. Confirm your choices. The upgrade runs in the background.

## Results

You upgraded to Tivoli Common Reporting, version 2.1.1. The Cognos instance was not changed and Cognos configuration was moved.

## What to do next

1. If you want to use LDAP as your user repository, configure it again. LDAP configuration is not automatically transferred to the upgraded instance of Tivoli Common Reporting. If you upgraded from Tivoli Common Reporting version 1.3, it is enough to configure LDAP in Tivoli Integrated Portal only.
2. Create new schedules for your reports. Report schedules created for previous versions of Tivoli Common Reporting are not mapped to Cognos scheduler.
3. “Configuring JDBC data sources using JNDI” on page 97 the same way as you configured them for the Tivoli Common Reporting version that you previously used. JNDI data sources are not transferred during the upgrade process.

---

## Upgrading across scenarios

When you have upgraded Tivoli Common Reporting, you can migrate the upgraded Tivoli Common Reporting from single to distributed environment and enable Tivoli Common Reporting 2.1.1 to use Cognos installed on a different computer.

### Before you begin

Ensure that you have a computer with Cognos installed.


### Procedure

1. Migrate the upgraded product from a single computer to a distributed environment.
2. Configure Tivoli Common Reporting to use Cognos installed on a separate computer.

## Exporting data from Tivoli Common Reporting

Before you enable your Tivoli Common Reporting instance to use external Cognos, export the data to preserve it.

### Procedure

1. Export the complete Cognos Content Store from Web user interface:
  - a. Select **Launch** → **Administration**.
  - b. Go to the **Configuration** tab and select **Content Administration**.
  - c. Create new package export by clicking  .



- d. Follow the wizard to export the archive.

The exported package is visible in the **Administration** window. All choices that you made with the export wizard are saved in this export package so you can use it later to run an export with the same settings. The export package is located in *TCR\_component\_dir/cognos/deployment*.

2. Archive the directory where report images are stored.

## What to do next

Enable Tivoli Common Reporting to use external Cognos.

## Migrating to a distributed environment

Migrate a single-computer installation to a distributed environment. First, upgrade the Cognos-based Tivoli Common Reporting engine, then modify the existing single-computer installation.

### Procedure


1. Upgrade Tivoli Common Reporting..
2. Export data from the existing Tivoli Common Reporting instance.
3. Modify the single-computer installation.
4. Import data.

---

## Exporting data from previous instances manually

Migrate the data from your previous Tivoli Common Reporting instances to Tivoli Common Reporting version 2.1.1.

### Procedure

1. Export BIRT reports from previous version of Tivoli Common Reporting to version 2.1.1:
  - a. Run the **tcrmd -export** command to export the reports from the older version of Tivoli Common Reporting. See the documentation to your old Tivoli Common Reporting instance documentation for details.
  - b. Import the reports into version 2.1.1 by running the “trcmd -import” on page 133 command.
2. Copy your own custom .jar files from *previous\_TCR\_install\_dir/lib* to *new\_TCR\_component\_dir/lib*.
3. Copy the report images to a folder with reports in Tivoli Common Reporting 2.1.1 installation directory.
4. If you are migrating data from Tivoli Common Reporting, version 1.3 or 2.1, export the Cognos data:
  - a. Open the Tivoli Integrated Portal console and select **Launch** → **Administration**.
  - b. Go to the **Configuration** tab and select **Content Administration**.
  - c. Create new package export by clicking  .
  - d. Import the previously exported data.



---

## Chapter 4. Configuring



Configure the IBM Tivoli Common Reporting you have installed to optimize its usage. Use the configuring section to learn how to set up data sources, and configure for high availability.

---

### Configuring LDAP or Microsoft Active Directory

After installation, you can configure a Lightweight Directory Access Protocol (LDAP) server or Microsoft Active Directory as a user registry.

Perform the following configuration steps depending on the installation scenario you selected:

Installation scenario	Configuration path
Single-computer installation	<ol style="list-style-type: none"><li>1. Configure the Tivoli Common Reporting Server.</li><li>2. Recommended for large user repositories: Configure the engine.</li></ol>
Distributed installation	<ul style="list-style-type: none"><li>• On the computer with Tivoli Common Reporting user interface installed configure the Tivoli Common Reporting Server</li><li>• On the computer with Cognos-based Tivoli Common Reporting engine installed, configure the reporting engine.</li></ul>
Integrating existing Cognos BI infrastructure	<ul style="list-style-type: none"><li>• On the computer with Tivoli Common Reporting user interface installed, configure the Tivoli Common Reporting Server.</li><li>• On the computer with IBM Cognos 8 installed, configure the reporting engine.</li></ul> <p><b>Important:</b> The configuration of the existing IBM Cognos 8 may already be set to a specified user repository. By performing these instructions you can modify it.</p>

Installation scenario	Configuration path
Upgrade	<b>Upgrade of single-computer installation</b> <ol style="list-style-type: none"> <li>1. Configure the Tivoli Common Reporting Server.</li> <li>2. Recommended for large user repositories: Configure the engine.</li> </ol>
	<b>Upgrade to a distributed installation</b> <ul style="list-style-type: none"> <li>• On the computer with Tivoli Common Reporting user interface installed configure the Tivoli Common Reporting Server:</li> <li>• On the computer with Cognos-based Tivoli Common Reporting engine installed, configure the reporting engine.</li> </ul>

## Configuring Tivoli Common Reporting Server

Configure the Tivoli Common Reporting Server to communicate with an external repository such as Lightweight Directory Access Protocol (LDAP) or Microsoft Active Directory.

### Before you begin

If you want all LDAP communications to be encrypted, you can specify SSL communications. If so, be sure to import the LDAP signer's certificate into the trust store of the Tivoli Common Reporting Server before starting this task.

### Procedure

1. Log in as an administrative user.
2. If you need to add a new LDAP repository, open the Tivoli Integrated Portal administrative console by direct link: `https://hostname:port_number/ibm/console/secure/securelogin.do` or from Tivoli Common Reporting user interface: `https://hostname:port_number/ibm/console`, from the navigation tree on the left, select **Settings** → **WebSphere Admin Console**, and **Launch WebSphere Admin Console**. When the console opens in a new window, perform the following steps:
  - a. Go to **Security** > **Global security**.
  - b. Select **Federated repositories** from the available realm definitions, then click **Configure**.
  - c. Click **Manage repositories** under **Related Items**. Then click **Add** to add a new LDAP Repository.
  - d. Enter LDAP security setting information. The primary host name and the distinguished name must contain no spaces.
  - e. Select **Require SSL communications** if all LDAP communications should be encrypted.
  - f. Select **Centrally managed**.
  - g. Click **OK**.
3. Return to **Global security** > **Federated repositories** and add an entry to the base realm:
  - a. Click **Add Base entry to Realm**.

- b. Enter the distinguished name (DN) of a base entry that uniquely identifies this set of entries in the realm. This base entry must uniquely identify the external repository in the realm.
- c. Click **OK**.

If multiple repositories are included in the realm, use the DN field to define an additional distinguished name that uniquely identifies this set of entries within the realm. For example, repositories LDAP1 and LDAP2 might both use `o=ibm,c=us` as the base entry in the repository. So `o=ibm,c=us` is used for LDAP1 and `o=ibm2,c=us` for LDAP2. The specified DN in this field maps to the LDAP DN of the base entry within the repository (such as `o=ibm,c=us b`). The base entry indicates the starting point for searches in this LDAP directory server (such as `o=ibm,c=us c`).

4. Click **Global security**, and then click **set as current** button to mark the federated repository as the current realm. The Mark Federated repository must be set as current.
5. Apply and save the changes.
6. Restart the server to enable the configuration.
7. Verify that the federated repository is correctly configured:
  - a. In the navigation tree, click **Users and Groups > Manage Users**.
  - b. Select **User ID** from the **Search by** list.
  - c. Click **Search** to search Users in federated repository. This list includes users from both LDAP and the local file registry.

On the Tivoli Common Reporting Server, LDAP users are queried only by the **userid** attribute. When users are imported into LDAP using an LDIF file, an auxiliary class of type **eperson** and **uid** attribute is added to the LDAP user ID. Note this is to be done only if you want to search the LDAP repository using VMM from the server.

8. If you want to create a user in LDAP, click **Users and Groups > Manage Users**, then click **Create** and continue as for the previous step: Enter user ID, first name, last name, email, and password.
9. For the changes to take effect, save, stop, and restart the Tivoli Common Reporting Server.

## What to do next

If you intend to enable single sign-on (SSO) so that users can log in once and then traverse to other applications without having to re-authenticate, check out the Tivoli Integrated Portal information on how to configure SSO.

## Configuring Cognos-based Tivoli Common Reporting engine

Configure the engine to use the same user repository as the Tivoli Common Reporting Server with the user interface. You can configure a Lightweight Directory Access Protocol (LDAP) server or Microsoft Active Directory. This procedure is recommended for large user repositories.

### About this task

If you have installed your Tivoli Common Reporting instance on a single computer, the Tivoli Common Reporting WMMProvider is used for LDAP by default, and no additional LDAP configuration is required. In the case of distributed installation, you must configure LDAP on both computers.

## Procedure

1. Open the IBM Cognos Configuration by running:
  - **Windows** **Start** → **All Programs** → **Tivoli Common Reporting 2.1.1** → **IBM Cognos Configuration**
  - **Linux** and **UNIX** `TCR_component_dir/cognos/bin/tcr_cogconfig.sh`
2. In the **Explorer** navigation on the left, go to **Security**, and right-click **Authentication** section.
3. Select **New resource** → **Namespace...**
4. Type in a name, select the registry type from the drop-down list, and click **OK**. New user registry is added to the list.
5. Select the entry you just created, and edit the fields required for configuration. You have to provide different values depending on the type of user registry selected. For details on how to configure the user registry, see *Configuring IBM Cognos 8 Components to Use an Authentication Provider of IBM Cognos information center*.
6. Test the connection configuration to verify it before saving.
7. Select **Cognos** entry, and edit the **Allow anonymous access?** field, changing it to **False**.
8. Save the new configuration.

## Results

**Important:** When you have configured LDAP, the reporting portlet can no longer be used by users not contained in the configured LDAP.

---

## Configuring Tivoli Common Reporting for Tivoli Integrated Portal future upgrade

Learn how to configure your Tivoli Common Reporting instance before you decide to upgrade Tivoli Integrated Portal.

### About this task

Tivoli Common Reporting is installed on Tivoli Integrated Portal as might be other products in your infrastructure. If you are planning to upgrade your Tivoli Integrated Portal instance in the future, you need to configure Tivoli Common Reporting binaries to ensure that your environment will function properly.

## Configuring Tivoli Common Reporting for future upgrade of Tivoli Integrated Portal

Configure Tivoli Common Reporting installed on the same computer as Tivoli Integrated Portal to work on a higher Tivoli Integrated Portal version.

### Before you begin

Provide all the necessary credentials in the `TCR_component_dir/integration/reconfiguration/reconfiguration.properties` file.

If you have installed Tivoli Common Reporting in distributed scenario, perform these steps for Tivoli Common Reporting user interface. No additional configuration is necessary for the reporting engine.

## About this task

Tivoli Common Reporting can work on one Tivoli Integrated Portal instance at a time. You can choose to configure it to operate on a higher version of Tivoli Integrated Portal than the one you were using before.

### Procedure

1. Run the `reconfigure.bat` script, specifying the path to the new Tivoli Integrated Portal as the argument:
  - **Windows** `TCR_component_dir\integration\reconfiguration\reconfigure.bat TIP_destination_dir`
  - **UNIX** **Linux** `TCR_component_dir/integration/reconfiguration/reconfigure.sh TIP_destination_dir`
2. Log in to the newly upgraded Tivoli Integrated Portal console by entering `http://hostname:port/ibm/console` in your web browser, and verify if Tivoli Common Reporting is working properly.

**Note:** Pay attention to the port number that you enter to ensure that you are logging in to the upgraded Tivoli Integrated Portal.

3. Depending on the result of your verification:
  - Save the changes by running the following script:
    - **Windows** `TCR_component_dir\integration\reconfiguration\commitReconfiguration.bat`
    - **UNIX** **Linux** `TCR_component_dir/integration/reconfiguration/commitReconfiguration.sh`

**Important:** If you decide to save the changes, the Tivoli Common Reporting installed on the previous version of Tivoli Integrated Portal will not work. It will work on the upgraded Tivoli Integrated Portal only.

- Roll back the changes by running:
  - **Windows** `TCR_component_dir\integration\reconfiguration\rollbackReconfiguration.bat`
  - **UNIX** **Linux** `TCR_component_dir/integration/reconfiguration/rollbackReconfiguration.sh`

**Important:** If you choose to roll back the changes, Tivoli Common Reporting will work on the previous version of Tivoli Integrated Portal only. It will not work on the upgraded Tivoli Integrated Portal instance.

4. Restart Tivoli Common Reporting.

## Migrating data to Tivoli Common Reporting installed on a higher Tivoli Integrated Portal version

Configure Tivoli Common Reporting installed in distributed scenario to ensure it works properly on a higher version of Tivoli Integrated Portal.

### About this task

If you have two instances of Tivoli Common Reporting, each installed on a different computer and using a different Tivoli Integrated Portal version, you can migrate the data to the Tivoli Common Reporting instance using higher version of Tivoli Integrated Portal.

## Procedure

1. Create a package with Tivoli Common Reporting data that you want to migrate:
  - a. Extract the following files:
    - TCRInstaller/COI/PackageSteps/TIPCore/FILES/tipUpgradeUtil.zip
    - TCRInstaller/COI/PackageSteps/TCRCORE/FILES/tcr/TCRPlugins.zipto *TIP\_install\_dir*/profiles/TIPProfile.

**Important:** On non-Windows platforms, run the following command to add run permissions for all upgrade scripts:

```
chmod +x TIP_install_dir/profiles/TIPProfile/upgrade/bin/*.sh
```

- b. Run the following command to finish creating the package:

Windows

```
TIP_install_dir\profiles\TIPProfile\upgrade\bin\tcrUpgrade.bat  
TIP_install_dir --username username --password password --productId  
TCR
```

Linux

```
UNIX TIP_install_dir/profiles/TIPProfile/upgrade/bin/  
tcrUpgrade.sh  
TIP_install_dir --username username --password password --productId  
TCR
```

The package is created in *TIP\_install\_dir*/profiles/TIPProfile/upgrade/data/upgradeData.zip

2. Extract the package on the computer with Tivoli Common Reporting using a higher Tivoli Integrated Portal version by issuing the following command:
  - Windows

```
new_TIP_install_dir\profiles\TIPProfile\upgrade\bin\upgrade.bat --username  
username --password password --productId TCR  
--upgradeDataFile path_to_upgradeData.zip
```
  - Linux      UNIX

```
new_TIP_install_dir/profiles/TIPProfile/upgrade/bin/upgrade.sh --username  
username --password password --productId TCR  
--upgradeDataFile path_to_upgradeData.zip
```
3. Restart Tivoli Common Reporting.

---

## Configuring Tivoli Common Reporting 2.1.1 to use Cognos installed on a separate computer

You can modify your Tivoli Common Reporting instance and enable it to use Cognos installed on a different computer.

### Procedure

1. Export data from Tivoli Common Reporting.
2. Enable Tivoli Common Reporting to use external Cognos.
3. Import the data to the computer where Cognos is installed. See IBM Cognos information center for details.




## Exporting data from Tivoli Common Reporting

Before you enable your Tivoli Common Reporting instance to use external Cognos, export the data to preserve it.

### Procedure

1. Export the complete Cognos Content Store from Web user interface:
  - a. Select **Launch** → **Administration**.
  - b. Go to the **Configuration** tab and select **Content Administration**.

- c. Create new package export by clicking  .
- d. Follow the wizard to export the archive.

The exported package is visible in the **Administration** window. All choices that you made with the export wizard are saved in this export package so you can use it later to run an export with the same settings. The export package is located in *TCR\_component\_dir/cognos/deployment*.

2. Archive the directory where report images are stored.

### What to do next

Enable Tivoli Common Reporting to use external Cognos.

## Enabling Tivoli Common Reporting to use external Cognos

After you have exported your data, you can modify your Tivoli Common Reporting instance to use Cognos installed on a different computer.

### Procedure

1. Ensure that the Tivoli Common Reporting server is started. If it is stopped, start it from the command-line interface:
  - a. Navigate to the installation subdirectory:
    - **Windows** *TCR\_component\_dir\bin* and run the `startTCRserver.bat` command.
    - **Linux** **UNIX** *TCR\_component\_dir/bin*, and run the `startTCRserver.sh` commandand exit the console by typing `quit`.
2. Uninstall IBM Cognos 8 from WebSphere Application Server:
  - a. Navigate to the installation subdirectory:
    - **Windows** *TIP\_install\_dir\profiles\TIPProfile\bin* and run the `wsadmin.bat` command
    - **Linux** **UNIX** *TIP\_install\_dir/profiles/TIPProfile/bin*, and run the `wsadmin.sh` command.
  - b. Provide the login and password for a Tivoli Common Reporting administrator.
  - c. Run the following commands:
    - `$AdminApp uninstall "IBM Cognos 8"`
    - `$AdminConfig save`
3. Stop the server from the command-line interface:
  - a. Navigate to the installation subdirectory:

- **Windows** `TCR_component_dir\bin` and run the `stopTCRserver.bat` command.
  - **Linux** **UNIX** `TCR_component_dir/bin`, and run the `stopTCRserver.sh` command.
4. Edit the stop and start server scripts:
    - a. Edit the `startTCRserver` script by commenting out the following lines:
      - **Windows** using the `::` characters:  
`start /B /D%COGNOS_DIR%\bin tcr_cogconfig.bat -s`
      - **Linux** **UNIX** using the `#` character:  
`"$COGNOS_DIR/bin/tcr_cogconfig.sh" -s`
    - b. Edit the `stopTCRserver` script by commenting out the following lines:
      - **Windows** using `::` characters:  
`call %COGNOS_DIR%\bin\tcr_cogconfig.bat -stop`
      - **Linux** **UNIX** using the `#` character:  
`"$COGNOS_DIR/bin/tcr_cogconfig.sh" -stop`
  5. Modify the `urlconfiguration.properties` file:
    - a. Go to:
      - **Windows** `TCR_component_dir\lib\configuration`
      - **Linux** **UNIX** `TCR_component_dir/lib/configuration`
    - b. Change the following lines in the script:
      - by adding the `#` character at the beginning of the first line
      - `urlprovider.contextRoot=/tarf` by adding the `#` character at the beginning of the line
      - `urlprovider.servletMapping=/servlet/component` by adding the `#` character at the beginning of the line
      - `urlprovider.portNumber=9300` by providing the Cognos port number. The default port number is 9300.
      - `urlprovider.hostName=host_name` by providing the name of the Cognos host

Here is an example of the modified script:

```
#Tue Jul 06 11:40:05 CEST 2010 74
#urlprovider.local.portNumber=16311
#urlprovider.contextRoot=/tarf
#urlprovider.servletMapping=/servlet/component
urlprovider.portNumber=9300
urlprovider.protocol=http
urlprovider.hostName=nc046074.kraklab.pl.ibm.com
```
  6. Remove the `cognos`, `tools`, and `data` directories located in `TCR_component_dir`
  7. Start the server as described in step 1.
  8. Clear the cookie files in your browser before running the application.

## What to do next

Import the data you have previously exported. See IBM Cognos information center for details.

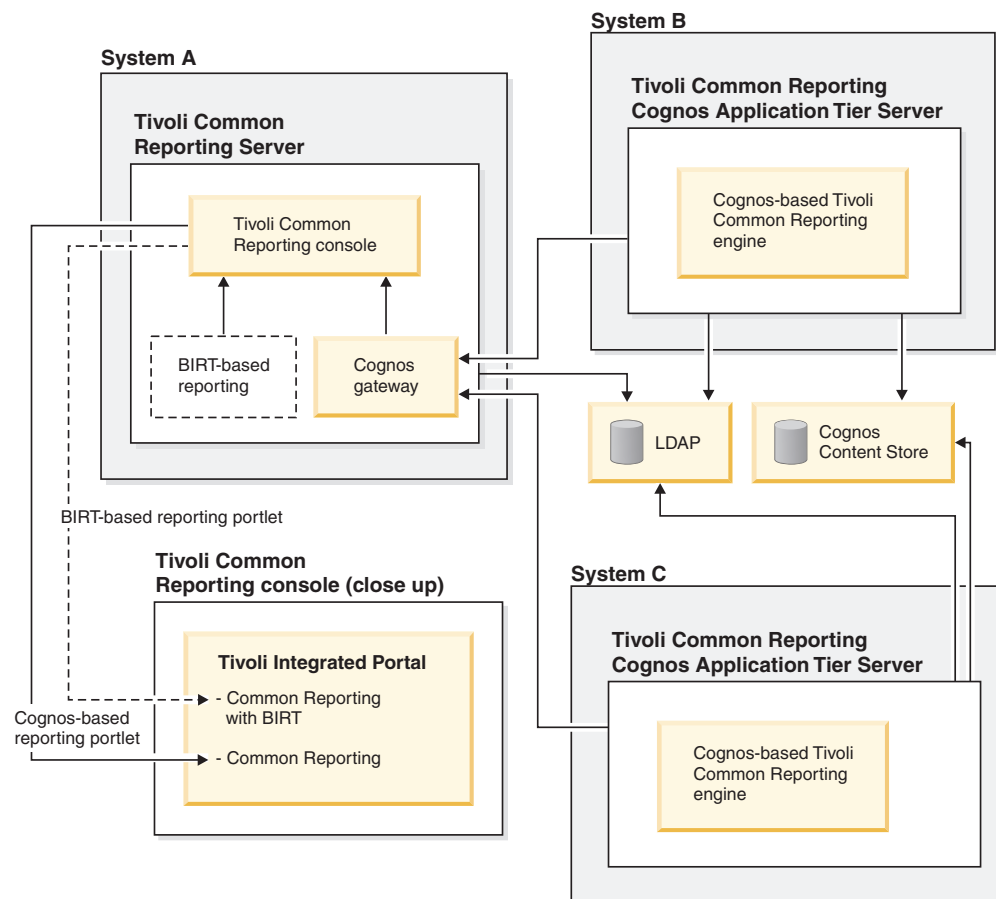
## Configuring clustered environment

Use the installation and configuring to maximize the performance, availability, or capacity. Tivoli Common Reporting Cognos Application Tier Server use the Connection interface to balance loads, perform queries, schedule jobs, and render reports. Content Manager stores all report specifications, results, packages, folders, and jobs in the content store.

### About this task

You can configure the Tivoli Common Reporting to be using clustered Tivoli Common Reporting Cognos Application Tier Server components. To improve scalability in an environment in which there is typically a large volume of report requests to process, you can install the Tivoli Common Reporting Cognos Application Tier Server components on multiple computers dedicated to processing incoming requests. By installing the components on multiple computers, as shown on the diagram, you distribute and balance loads among the computers. You also have better accessibility and throughput than on a single computer, as well as failover support.


**Important:** In a clustered environment, all Tivoli Common Reporting instances must share one common content store. You must install the Tivoli Common Reporting Cognos reporting engine to install the central content store. All the reporting engines must be configured to use one central content store.



## Procedure

1. Use the first part of the distributed installation instructions to install several instances of Cognos-based Tivoli Common Reporting engines which are the Tivoli Common Reporting Cognos Application Tier Server components - shown on the exemplary diagram as System B and System C.

**Note:** To learn more about Application Tier Components installation, go to *IBM Cognos 8 Installation and Configuration Guide*, page 33.

2. Then, on a separate computer, install the Tivoli Common Reporting user interface if you have not done so far - on the diagram represented as System A.
3. Specify the URIs of all the installed engines in the Web user interface by following the steps:
  - a. Open **IBM Cognos Configuration** by:
    - **Windows** Going to **Start** → **All Programs** → **Tivoli Common Reporting** → **IBM Cognos Configuration**
    - **Linux** and **UNIX** running the following command  
`TCR_component_dir/Cognos/bin/tcr_cogconfig.sh`.This opens a separate configuration tool.
  - b. Go to **Environment** section, and in the **Environment - Group Properties** panel on the right, look for **Dispatcher URIs for gateway** entry in the **Gateway Settings** section.
  - c. Click on the value field, and edit it by clicking the . The **Value** window opens.
  - d. In the **Value** window, click **Add** to add new URIs, and click **OK** to save your changes.
  - e. In the IBM Cognos Configuration window, save your configuration changes by going to **File** → **Save**.

## What to do next

Now you can configure a user repository and a central database

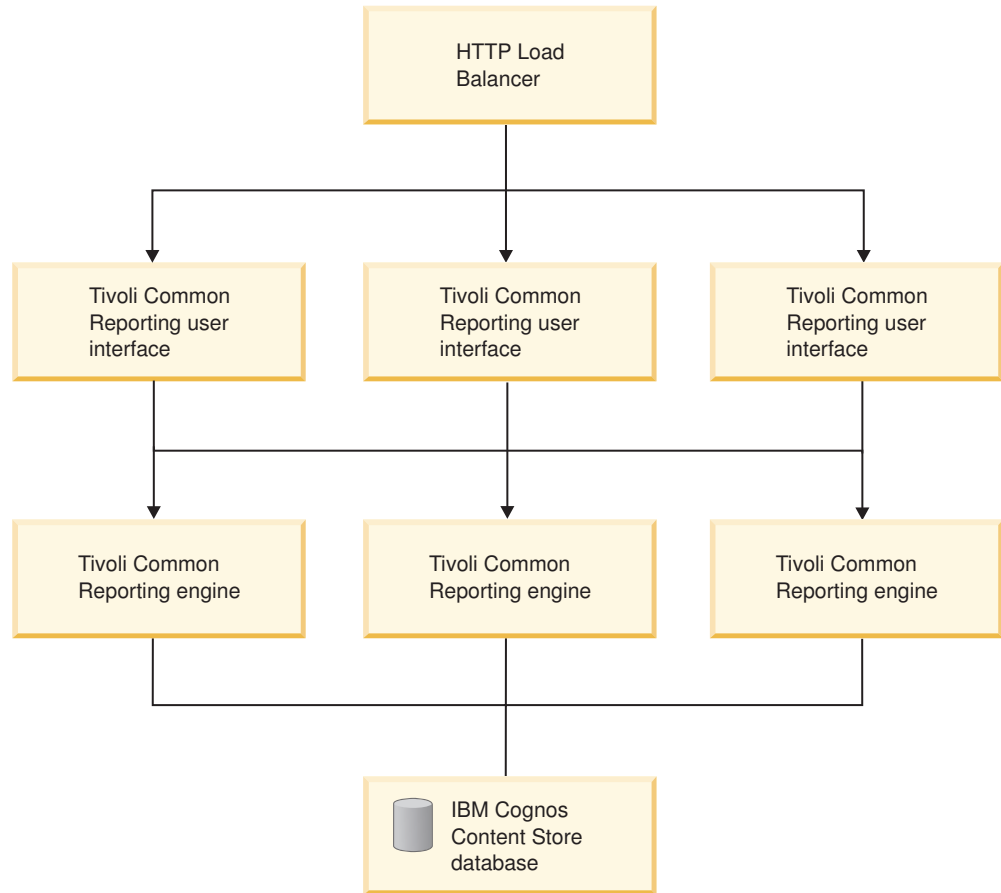
---

## Configuring distributed installation for load balancing

Configure your reporting system to obtain higher performance and usability levels while running reports by adding another reporting engine system, and ensure failover.

### About this task

Load balancing allows you to have multiple user interfaces as well as reporting engines installed, which will distribute and balance loads among the computers. This, in turn, improves scalability in an environment where there is a large volume of report requests to process. It also ensures failover. The diagram below presents how various components are linked together to ensure load balancing.



This task is based on a distributed installation scenario.

**Important:** Remember to install the reporting engine first, and only then the user interface.

## Procedure

1. Run distributed installation.

**Tip:** To add reporting engines to your infrastructure:

- a. Run the installation program on each computer where you want to install the reporting engine.
- b. Select the distributed installation scenario.
- c. Select to install the reporting engine.

2. Configure the Tivoli Common Reporting engines that you have installed.

**Tip:** Repeat this step for every reporting engine that you have installed.

3. Configure the user interface.

**Tip:** You can add more interfaces to your infrastructure:

- a. Run the installation program on the machine where you want to install the user interface.
- b. Select the distributed installation scenario.
- c. Select to install the user interface.

- d. Configure each of the user interfaces that you have installed.

## What to do next

1. To finish the configuration, see the following topics of the IBM Cognos 8 information center:
  - Balance requests among reporting engines. You can set the way in which the requests are handled among the dispatchers.
  - Use cluster compatible mode for dispatchers. You can change the way in which the load is balanced in your infrastructure.
  - Installing and configuring distributed installations. Learn how to properly configure the server component, Content Manager component, Application Tier components, and gateway. The sequence in which you configure the computers is important. Visit the topic to find out more.
2. Learn how to:
  - Start and stop dispatchers and services.
  - Activate a Content Manager service
  - Remove dispatchers from your environment.

## Load balancing

You can setup a load balancing cluster of portal nodes with identical configurations to evenly distribute user sessions. Load balancing is ideal for Tivoli Integrated Product installations with a large user population. When a node within a cluster fails, new user sessions are directed to other active nodes.

Work load is distributed by session, not by request. If a node in the cluster fails, users who are in session with that node must log back in to access the Tivoli Integrated Product. Any unsaved work is not recovered.

You must have some experience with Lightweight Directory Access Protocol (LDAP) (or the Tivoli Netcool/OMNIBus ObjectServer), DB2, and network dispatchers (for example, IBM HTTP) in a distributed environment to successfully setup load balancing.

## Synchronized data

After load balancing is set up, changes in the console that are stored in global repositories are synchronized to all of the nodes in the cluster using a common database. The following actions cause changes to the global repositories used by the console. Most of these changes are caused by actions in the **Settings** folder in the console navigation.

- Creating, restoring, editing, or deleting a page.
- Creating, restoring, editing, or deleting a view.
- Creating, editing, or deleting a preference profile or deploying preference profiles from the command line.
- Copying a portlet entity or deleting a portlet copy.
- Changing access to a portlet entity, page, external URL, or view.
- Creating, editing, or deleting a role.
- Changes to portlet preferences or defaults.
- Changes from the **Users and Groups** applications, including assigning users and groups to roles.

**Note:** Global repositories should never be updated manually.

During normal operation within a cluster, updates that require synchronization are first committed to the database. At the same time, the node that submits the update for the global repositories notifies all other nodes in the cluster about the change. As the nodes are notified, they get the updates from the database and commit the change to the local configuration.

If data fail to be committed on any given node, a warning message is logged into the log file. The node is prevented from making its own updates to the database. Restarting the Tivoli Integrated Portal Server instance on the node rectifies most synchronization issues, if not, the node should be removed from the cluster for corrective action. See “Monitoring a load balancing cluster” on page 74 for more information.

## Manual synchronization and maintenance mode

Updates to deploy, redeploy, or remove console modules are not automatically synchronized within the cluster. These changes must be performed manually at each node. For deploy and redeploy operations, the console module package must be identical at each node.

When one of the deployment commands is started on the first node, the system enters *maintenance mode* and changes to the global repositories are locked. After you finish the deployment changes on each of the nodes, the system returns to an unlocked state. There is not any restriction to the order that modules are deployed, removed, or redeployed on each of the nodes.

While in maintenance mode, any attempts to make changes in the portal that affect the global repositories are prevented and an error message is returned. The only changes to global repositories that are allowed are changes to a user's personal portlet preferences. Any changes outside the control of the portal, for example, a form submission in a portlet to a remote application, are processed normally.

The following operations are also not synchronized within the cluster and must be performed manually at each node. These updates do not place the cluster in maintenance mode.

- Deploying, redeploying, and removing wires and transformations
- Customization changes to the console user interface (for example, custom images or style sheets) using `consoleProperties.xml`.

To reduce the chance that users could establish sessions with nodes that have different wire and transformation definitions or user interface customizations, schedule these changes to coincide with console module deployments.

## Requirements

The following requirements must be met before load balancing can be enabled.

- Lightweight Directory Access Protocol (LDAP) must be installed and configured as the user repository for each node in the cluster. For information about which LDAP servers you can use, see List of supported software for WebSphere Application Server V7.0. See Configuring LDAP user registries for instructions on how to enable LDAP for each node.

- A front-end network dispatcher (for example, IBM HTTP Server) must be setup to handle and distribute all incoming session requests. See Setting up intermediary services for more information about this task.
- DB2 Version 9.7 must be installed within the network to synchronize the global repositories for the console cluster.
- Each node in the cluster must be enabled to use the same LDAP using the same user and group configuration.
- All console nodes in load balancing cluster must be installed in the same cell name. After console installation on each node, use the **-cellName** parameter on the `manageprofiles` command.
- All console nodes in load balancing cluster must have synchronized clocks.
- The WebSphere Application Server and Tivoli Integrated Portal Server versions must have the same release level, including any fix packs. Fixes and upgrades for the runtime must be applied manually at each node.

## Monitoring a load balancing cluster

If synchronized data fails to be committed to a node in the cluster, that node should be removed from the cluster for corrective action. Use the diagnosis tool to identify any unsynchronized nodes in the load balancing cluster.

To determine if changes to global data are not committed to any of the nodes, use the `HATool` command script to check the synchronization of modules and repositories on the nodes in a cluster. For the `HATool`, you must provide the DB2 administrator's credentials.

### Query synchronization of modules

Use this command to determine if all nodes have identical sets of modules deployed.

```
HATool.bat/sh modules username password -byNodes -showAll
```

The following parameters are optional.

- **-byNodes**  
Specifies that the results of the command are ordered by the node in the cluster. This parameter is optional. The default is to list the results by module.
- **-showAll**  
Specifies that all modules and nodes in the cluster should be returned. This parameter is optional. The default is to return only modules for unsynchronized nodes.

### Query the synchronization of global repositories

Use this command to determine if all repositories are synchronized on all nodes.

```
HATool.bat/sh repositories username password -byNodes -showAll
```

The following parameters are optional.

- **-byNodes**  
Specifies that the results of the command are ordered by the node in the cluster. This parameter is optional. The default is to list the results by repository.
- **-showAll**



Specifies that all modules and nodes in the cluster should be returned. This parameter is optional. The default is to return only repositories for unsynchronized nodes.

### Release the global lock

Use this command to manually release the global lock placed on all of the console nodes when the cluster is in maintenance mode. This command is used when a node cannot commit a change during synchronization and has to be taken offline.

```
HATool.bat/sh release-lock username password
```

## Configuring the reporting engine for load balancing

Load balancing for the reporting engine bases on Cognos. It is recommended that the Cognos database you are using is based on Enterprise solution, such as DB2®, Oracle or MS SQL.

### Before you begin

You need to have one or more reporting engines installed in your infrastructure.

### About this task

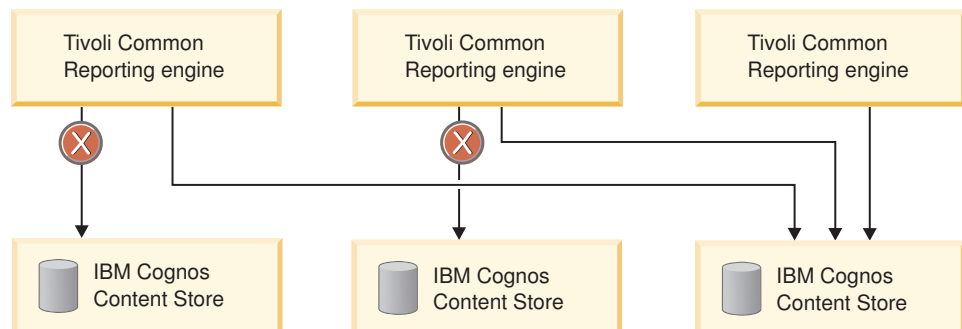
When you have installed all the reporting engines, you must configure Cognos Content Store to enable all the reporting engines to connect to it.

### Procedure






1. Select the database on which you want to install Cognos Content Store. You may installed a separate database to serve this purpose or reuse the existing derby database installed with one of the reporting engines.
2. Run the `tcr_cogconfig.bat` Windows or `tcr_cogconfig.sh` Linux to open IBM Cognos Configuration and configure your reporting engines to connect to the database with Cognos Content Store installed in it. The script is located in:

```
user_installation_directory/cognos/bin for  
Cognos reporting engine installation scenario  
TCR_component_dir/cognos/bin  
for user interface for Cognos installation scenario.
```

- If you chose to install a new database, refer to Cognos documentation for details on how to configure the database. All reporting engines must point to this database.
- If you chose to reuse the database installed on one of the reporting engines, you must delete the existing databases configured for all the other reporting engines, and configure them to use the one you chose.



To configure your reporting engines:

- a. Go to the **Data Access** → **Content Manager** section and select **IBM Cognos Content Store** from the navigation tree.
  - b. Right-click the derby database and select **Delete**.
  - c. Right-click **Content Manager** and select **New resource**.
  - d. Type the name and choose the type of the database that you want to add.
  - e. In the database properties window on the right, type the IP address of the computer where the reporting engine with the database is installed.
  - f. Type the user ID and password.
  - g. Return to the navigation tree, right-click on the database that you have just added and select **Test**. A message informing you that the database works correctly appears.
3. Configure the same LDAP for all the reporting engines.
  4. Configure the user interface to connect to all the reporting engines installed by specifying the URIs of the reporting engines.
    - a. In the user interface, open the Configuration.
    - b. Go to the **Environment** section, and in the **Environment - Group Properties** panel on the right, look for **Dispatcher URIs for gateway** entry in the **Gateway Settings** section.
    - c. Click the value field and edit it by clicking . The **Value** window opens.
    - d. In the **Value** window, click **Add** to add new URIs, and click **OK** to save your changes. Use host IP addresses or fully qualified computer names.
    - e. In the IBM Cognos Configuration window, save your configuration changes by going to **File** → **Save**.
  5. Restart IBM Cognos 8 on the reporting engines in your infrastructure:
    - a. Open the Configuration
    - b. Go to the **Environment** → **IBM Cognos 8 service** section, and select **IBM Cognos 8**
    - c. Select the **Stop** icon on the toolbar at the top.
    - d. Start IBM Cognos 8 service on the reporting engine where the central database is configured.
    - e. Start IBM Cognos 8 services on all other reporting engines.
  6. Restart user interface:
    - a. Run the stopTCRserver.bin (  ) or stopTCRserver.sh (  ) script located in *TCR\_component\_dir\bin*.
    - b. Run the startTCRserver.bin (  ) or startTCRserver.sh (  ) script located in *TCR\_component\_dir\bin*.
  7. Copy the report images to the Tivoli Common Reporting server and user interface.

**Important:** The same reports must be imported and configured for all the reporting engines in your infrastructure.

- In the case of BIRT reports, you must import and configure them on every reporting engine. If you are establishing load balancing in an existing environment, you can copy the data catalog from an existing reporting engine instead of importing and configuring the reports again.
- In the case of Cognos reports, you must import the reports on the first reporting engine visible on the list in the Administration Panel. It is enough

to import the reports on one reporting engine because all the reporting engines are connected to one Cognos Content Store.

#### Related information

 JDBC Driver Options for Using DB2 Database as a Content Store.

 Dispatchers and Services.

## Configuring user interface for load balancing

Configure all the instances of user interface that you have installed to benefit from load balancing and share the workload among multiple computers.

### Before you begin

You need to have two or more user interfaces pointing to one reporting engines installed.

**Note:** You must perform all the steps described below for all the user interfaces in your infrastructure.

### About this task

Load balancing for user interface in Tivoli Common Reporting is based on Tivoli Integrated Portal. To fully benefit from load balancing, you need to configure the following components:

- DB2 database that stores data and replicates them multiple instances of Tivoli Common Reporting. DB2 database can be configured for failover.
- An LDAP server to act as a centralized user registry.
- IBM HTTP Server that routes HTTP requests to the server with the least activity to provide the best performance and share the workload.

### Procedure

1. Configure all the user interfaces installed to point to all the dispatchers installed.
2. Configure DB2 for load balancing.
3. Configure LDAP as user repository for load balancing.
4. Configure IBM HTTP Server to point to all the user interfaces.

**Note:** If you are using other HTTP server, refer to its documentation for configuration details.

5. Copy the report images to the Tivoli Common Reporting server and user interface.

**Important:** The same reports must be imported and configured for all the reporting engines in your infrastructure. If you want to add a new reporting engine, you can copy the data catalog from an existing reporting engine instead of importing and configuring the reports again. In the case of Cognos reports, it is enough to import the reports on any reporting engine because all the reporting engines are connected to one Content Store. You must import BIRT reports on each of the engines separately.

## Related information

 Tivoli Integrated Portal - load balancing

## Configuring IBM HTTP Server

Configure IBM HTTP Server as Tivoli Integrated Portal load balancer. The server must point to all the user interfaces that you have installed.

### About this task

The infrastructure that you configure in this task consists of a computer on which IBM HTTP Server together with WebSphere Application plugin is installed, and two or more computers on which Tivoli Integrated Portal high availability cluster is configured.

### Procedure

1. Install IBM HTTP Server, version 7.0 together with WebSphere Application 7.0 plugin. After you have done that, verify if the installation was successful by opening `http://hostname:80` in your Web browser.
2. Secure IBM HTTP Server with SSL communications. When you have done that, open `https://hostname:443` in your Web browser to ensure that the configuration works properly.
3. On a different computer, install Tivoli Integrated Portal and enable load balancing for it.
4. Create Web server on each of the computers in the load balancing configuration:
  - a. Open the `server.xml` file located in `TIP_install_dir\profiles\TIPProfile\config\cells\TIPCell\nodes\TIPNode\servers\server1`, find the following section in the file:  
applicationserver.webcontainer:WebContainer,  
and add the following line in the components section:  
`<properties xmi:id="WebContainer_12345678" name="HttpSessionCloneId" value="12345" required="false"/>`

**Note:** Insert the `properties` element into the `components` element referring to `WebContainer`. The `value` element must be different for each of the computers belonging to Tivoli Integrated Portal high availability cluster. The `id` must be the same as the one in the `components` section.

- b. Copy the `plugin-key.kdb` and `plugin-key.sth` located in `TIP_install_dir\profiles\TIPProfile\config\cells\TIPCell\nodes\node_created_by_running_configurewebserver1.sh_script\servers\webserver1` to the computer where you installed IBM HTTP Server.
  - c. Restart the Tivoli Integrated Portal server.

**Remember:** Repeat step 4 on each of the computers that belongs to Tivoli Integrated Portal load balancing configuration.

5. Configure the `plugin-cfg.xml` file on the computer where IBM HTTP Server is installed. The file is located in `HTTPServer_install_dir\Plugins\config\webserver1`.
  - a. Point to the `plugin-key.kdb` and `plugin-key.sth` that you copied in step 4e.
  - b. Provide correct Tivoli Integrated Portal server information such as **name**, **port**, or **LoadBalanceWeight** for each of the computers in the cluster.
  - c. Change the **AffinityCookie** value to **AffinityCookie="JSESSIONID\_isc"**.

- d. Check if the **VirtualHostGroup** parameter is set to "admin\_host". Below is an example of the plugin-cfg.xml file for Tivoli Common Reporting:

```
<Config ASDisableNagle="false" IISDisableNagle="false"
    IgnoreDNSFailures="false" RefreshInterval="60"
    ResponseChunkSize="64" AcceptAllContent="false"
    IISPluginPriority="High" FIPSEnable="false"
    AppServerPortPreference="HostHeader" VHostMatchingCompat="false"
    ChunkedResponse="false">
<Log LogLevel="Error"
    Name="C:\Program Files\IBM\HTTPServer\Plugins\logs\webserver1/http_plugin.log"/>
<Property Name="ESIEnable" Value="true"/>
<Property Name="ESIMaxCacheSize" Value="1024"/>
<Property Name="ESIInvalidationMonitor" Value="false"/>
<Property Name="PluginInstallRoot" Value="C:\Program Files\IBM\HTTPServer\Plugins"/>
<VirtualHostGroup Name="admin_host"/>
    <VirtualHost Name="*:36310"/>
    <VirtualHost Name="*:36311"/>
    <VirtualHost Name="*:46310"/>
    <VirtualHost Name="*:46311"/>
    <VirtualHost Name="*:80"/>
    <VirtualHost Name="*:443"/>
</VirtualHostGroup>
<ServerCluster Name="server1_Cluster" CloneSeparatorChange="false"
    LoadBalance="Round Robin"
    PostBufferSize="64" IgnoreAffinityRequests="true"
    PostSizeLimit="-1" RemoveSpecialHeaders="true" RetryInterval="60">
    <Server Name="server1" CloneID="12346" ConnectTimeout="5"
        ExtendedHandshake="false" ServerIOTimeout="60"
        LoadBalanceWeight="10" MaxConnections="-1" WaitForContinue="false">
        <Transport Hostname="tiv-isc02.cn.ibm.com" Port="36310" Protocol="http"/>
        <Transport Hostname="tiv-isc02.cn.ibm.com" Port="36311" Protocol="https">
        <Property name="keyring"
            value="C:\Program Files\IBM\HTTPServer\Plugins\plugin-key.kdb"/>
        <Property name="stashfile"
            value="C:\Program Files\IBM\HTTPServer\Plugins\plugin-key.sth"/>
        </Transport>
        </Server>
    <Server Name="server2" CloneID="12345" ConnectTimeout="5"
        ExtendedHandshake="false" ServerIOTimeout="60"
        LoadBalanceWeight="1" MaxConnections="-1" WaitForContinue="false">
        <Transport Hostname="tiv-isc02.cn.ibm.com" Port="46310" Protocol="http"/>
        <Transport Hostname="tiv-isc02.cn.ibm.com" Port="46311" Protocol="https">
        <Property name="keyring"
            value="C:\Program Files\IBM\HTTPServer\Plugins\ha2\plugin-key.kdb"/>
        <Property name="stashfile"
            value="C:\Program Files\IBM\HTTPServer\Plugins\ha2\plugin-key.sth"/>
        </Transport>
        </Server>
    </PrimaryServers>
</ServerCluster>
<UriGroup Name="server1_Cluster_URIs">
    <Uri AffinityCookie="JSESSIONID_isc" AffinityURLIdentifier="jsessionid"
        Name="/ibm/console"/>
    <Uri AffinityCookie="JSESSIONID_isc" AffinityURLIdentifier="jsessionid"
        Name="/ibm/console/*"/>
    <Uri AffinityCookie="JSESSIONID_isc" AffinityURLIdentifier="jsessionid"
        Name="/ibm/console/ISCProxy"/>
    <Uri AffinityCookie="JSESSIONID_isc" AffinityURLIdentifier="jsessionid"
        Name="/ibm/console/ISCProxy/*"/>
    <Uri AffinityCookie="JSESSIONID_isc" AffinityURLIdentifier="jsessionid"
        Name="/ibm/help"/>
    <Uri AffinityCookie="JSESSIONID_isc" AffinityURLIdentifier="jsessionid"
        Name="/ibm/help/*"/>
</UriGroup>
```

```

    <Uri AffinityCookie="JSESSIONID_isc" AffinityURLIdentifier="jsessionid"
    Name="/mum/js"/>
    <Uri AffinityCookie="JSESSIONID_isc" AffinityURLIdentifier="jsessionid"
    Name="/mum/js/*"/>
    <Uri AffinityCookie="JSESSIONID_isc" AffinityURLIdentifier="jsessionid"
    Name="/j_security_check"/>
    <Uri AffinityCookie="JSESSIONID_isc" AffinityURLIdentifier="jsessionid"
    Name="/ibm_security_logout"/>
    <Uri AffinityCookie="JSESSIONID_isc" AffinityURLIdentifier="jsessionid"
    Name="/ibm/console/ISCProxy"/>
    <Uri AffinityCookie="JSESSIONID_isc" AffinityURLIdentifier="jsessionid"
    Name="/ibm/console/ISCProxy/*"/>
    <Uri AffinityCookie="JSESSIONID_isc" AffinityURLIdentifier="jsessionid"
    Name="/ibm/*"/>
    <Uri AffinityCookie="JSESSIONID_isc" AffinityURLIdentifier="jsessionid"
    Name="*.jsp"/>
    <Uri AffinityCookie="JSESSIONID_isc" AffinityURLIdentifier="jsessionid"
    Name="*.jsv"/>
    <Uri AffinityCookie="JSESSIONID_isc" AffinityURLIdentifier="jsessionid"
    Name="*.jsw"/>
  </UriGroup>
  <Route ServerCluster="server1_Cluster"
    UriGroup="server1_Cluster_URIs" VirtualHostGroup="admin_host"/>
  <RequestMetrics armEnabled="false" newBehavior="false"
    rmEnabled="false" traceLevel="HOPS">
    <filters enable="false" type="URI">
      <filterValues enable="false" value="/servlet/snoop"/>
      <filterValues enable="false" value="/webapp/examples/HitCount"/>
    </filters>
    <filters enable="false" type="SOURCE_IP">
      <filterValues enable="false" value="255.255.255.255"/>
      <filterValues enable="false" value="254.254.254.254"/>
    </filters>
  </RequestMetrics>
</Config>

```

e. Restart IBM HTTP Server from the Service list window.

6. Configure SSL communications between the WebSphere Application plugin and Tivoli Integrated Portal.

- a. Log in to the WebSphere Application Server administrative console.
- b. Select **Security** → **SSL certificates and key management** → **Key stores and certificates**.
- c. Select **NodeDefaultKeyStore**.
- d. Go to **Personal Certificates**, leave the default settings and click **Extract**.
- e. Supply the path and name of the file, for example **/root/defaultCert.arm**. **.arm** is the recommended file extension.
- f. Leave the encoding settings as **Base64** and click **OK**.
- g. In the httpd.conf file, find the **WebSpherePluginConfig** parameter. This parameter shows you where the plugin-cfg.xml file is located, for example:  
 WebSpherePluginConfig "/opt/IBM/HTTPServer/Plugins1/config/webserver1/plugin-cfg.xml"
- h. Open the plugin-cfg.xml file and find the **keyring** phrase. Its value shows you the location of the .kdb file, for example:  
 <Property Name="keyring"  
 Value="/opt/IBM/HTTPServer/Plugins1/config/webserver1/plugin-key.kdb"/>

Note this location for later use.

- i. Start the ikeyman directory by issuing **cd /opt/IBM/HTTPServer/bin** and **./ikeyman**. You need an X-Window server to perform this step.



- j. Select **Key Database File** → **Open**, and then select a key database of the CMS type.
  - k. Specify the .kdb file name and location, for example:  

```
plugin-key.kdb
/opt/IBM/HTTPServer/Plugins1/config/webserver1/plugin-key.kdb
```

and confirm it.
  - l. Enter the password. The default WebSphere Application Server password is WebAS.
  - m. Select **Signer Certificates** from the **Personal Certificates** expandable list and click **Add**.
  - n. Browse to the .arm file that you exported. Select it, click **Open** and then **OK**. Supply the name if prompted.
  - o. Select **Key Database File** → **Save As** and save it to the original location.
  - p. Restart IBM HTTP Server.
7. Open Tivoli Integrated Portal console in your Web browser by typing in the following address: `http://computer_with_IHS_installed/ibm/console`.

**Tip:** If you experience any problems with the plugin-cfg.xml file contents and parsing, go to error.log located in the `HTTPServer_install_dir\logs` folder for more information.

#### Related information

-  Tivoli Integrated Portal - load balancing.
-  Web server plug-in tuning tips.

---

## Configuring Framework Manager connection

Framework Manager is a separately installable application used to model reports. If you have installed it in a location different from the default one, you need to configure it to run with the Cognos-based Tivoli Common Reporting engine and user interface.

### Before you begin

Make sure you have extracted and installed the Framework Manager component available from the installation media on the machine where you want to model reports. Before you install Framework Manager, ensure that the JAVA\_HOME environment variable is not set. Framework Manager is delivered together with its own version of Java, so if you have JAVA\_HOME set to Java version already installed on your computer, Framework Manager configuration may fail to start.

If you have installed Framework Manager on a system other than the system where Tivoli Common Reporting engine is installed, the data source must exist on this Framework Manager system as well as on the Tivoli Common Reporting engine system.

### Procedure

1. Open the Framework Manager configuration program by running `Framework_Manager_install_dir\bin\cogconfigw.exe`

**Tip:** The default Framework Manager installation directory is `c:\%Program Files%\cognos\bin\cogconfigw.exe`



2. In the **Explorer** navigation on the left, go to **Environment** section. **Group Properties** panel opens on the right.
3. Go to **Gateway Settings**, and locate **Gateway URI**. Click on the value field, and update it with the URI to your Tivoli Common Reporting server.

**Tip:** The default value for a single-computer installation is `https://localhost:16311/tarf/servlet/component`.

The URIs in Step 3 and Step 4 should match the values in the Tivoli Common Reporting, IBM Cognos Configuration manager. You can check those values by running `tcr_cogconfig.bat` (Windows) or `tcr_cogconfig.sh` (UNIX) on the Tivoli Common Reporting server in the `TCR_component_dir\cognos\bin`.

4. In the **Other URI Settings**, edit the value for **Dispatcher URI for external applications** to match the location of your Tivoli Common Reporting engine.

**Tip:** The default value for **Dispatcher URI for external applications** is `http://localhost:16310/tarf/servlet/dispatch/ext` for a single-computer installation, and `http://localhost:9080/p2pd/servlet/dispatch` for the distributed installation.

5. Save the new configuration.

## What to do next

You can now start modeling your reports with the use of Framework Manager. You will need to log in twice because Framework Manager does not support single sign-on.

---

## Configuring database connection

Configure the connection to a database to access your data. Tivoli Common Reporting supports several database types.

### Related information

 IBM Cognos Administration and Security Guide 8.4.1 - Data Sources and Connections

## Connecting to a DB2 database

Connect Tivoli Common Reporting to a DB2 database.

### Before you begin



Perform this task with the support of a database administrator.

Make sure you have deployed the 32-bit DB2 database client on the machine where Cognos-based Tivoli Common Reporting engine is installed. The version of the client should match the version of your database.

### About this task

The configuration comprises of connecting the database to a client, and activating optional cross-database functionality.



## Procedure

1. Windows Linux Connect the DB2 database client to the database server by running the **Configuration Assistant**, configuring the local net service name configuration, and restarting your system. For other operating systems, see Configuring client-to-server connections in the DB2 information center.

**Important:** Note the name of the connection you have created as it is used in one of the following steps.


Additionally, for non-Windows platforms, the Tivoli Common Reporting must be able to find the native DB2 libraries. To ensure this, check if the DB2 directory containing libraries exists before starting the Tivoli Common Reporting server and configure the system library path to point to the database client library directory by modifying the following environment variable:

- AIX **LIBPATH**
- HP-UX **SHLIB\_PATH**
- Linux Solaris **LD\_LIBRARY\_PATH**

For example, you can modify the startTCRserver.sh script by inserting the following line before starting WebSphere Application Server:

```
export LD_LIBRARY_PATH=/opt/ibm/db2/V9.5/lib32:$LD_LIBRARY_PATH
```

For non-Windows systems, you may also need to source the DB2 profile in the Tivoli Common Reporting environment before starting the server, for example `./home/db2 user/sqlib/db2profile`. You can modify the startTCRserver.sh script by inserting the following line before starting WebSphere Application Server: `./home/db2 user/sqlib/db2profile`, where *db2 user* is your local DB2 user ID.

2. Create new database connection for Cognos by following the steps:
  - a. From the **Common Reporting** portlet, go to **Launch** drop-down list, and choose the **Administration**.
  - b. On the **Configuration** tab, add a new data source by clicking .
  - c. Follow the **New Data Source wizard** as required noting the following steps:
    - On the second panel choose an DB2 database as **Type**.
    - On the third panel specify the name of the connection you have noted before as the **DB2 database name**, and in the **Signon** section specify a new **User ID** and **Password**.

## Results

You have now connected your Tivoli Common Reporting to an DB2 database instance.

## Connecting to an MS SQL database

Connect the Tivoli Common Reporting to an MS SQL database.

### Before you begin



Perform this task with the support of a database administrator.

Make sure you have deployed an MS SQL database client on the computer where Cognos-based Tivoli Common Reporting engine is installed.


## About this task

The configuration comprises of connecting the database to a client, and activating optional cross-database functionality.

## Procedure

1. Connect the MS SQL client to the database server by running the **MS SQL Management Studio Express**, configuring the local net service name configuration, and restarting your system.

**Important:** Note the name of the connection you have created as it is used in one of the following steps.

2. Create new database connection for Cognos by following the steps:
  - a. From the **Common Reporting** portlet, go to **Launch** drop-down list, and choose the **Administration**.
  - b. On the **Configuration** tab, add a new data source by clicking  .
  - c. Follow the **New Data Source wizard** as required noting the following steps:
    - On the second panel choose an Microsoft SQL Server database as **Type**.
    - On the third panel specify the name of the connection you have noted before as the **Server name**, and in the **Signon** section specify a new **User ID** and **Password**.

## Results

You have now connected your Tivoli Common Reporting to an MS SQL database instance.

## Connecting to an Oracle database

Connect the Tivoli Common Reporting to an Oracle database.

### Before you begin



Perform this task with the support of a database administrator.

Make sure you have deployed the 32-bit Oracle database client on the machine where Cognos-based Tivoli Common Reporting engine is installed.

**Important:** You may need to export the **TNS\_ADMIN** environment variable before starting the Tivoli Common Reporting server. The **TNS\_ADMIN** variable in the **startTCRserver.sh** script should be set to point to the location of Oracle **tnsnames.ora** file. See the Oracle documentation for details.


## About this task

The configuration comprises of connecting the database to a client, configuring calculations for Oracle functions, and activating optional cross-database functionality.

## Procedure

1. Connect the Oracle database client to the database server by running the **Oracle Net Configuration Assistant**, configuring the local net service name configuration, and restarting your system.

**Important:** Note the name of the connection you have created as it is used in one of the following steps.

2. Create new database connection for Cognos by following the steps:
  - a. From the **Common Reporting** portlet, go to **Launch** drop-down list, and choose the **Administration**.
  - b. On the **Configuration** tab, add a new data source by clicking  .
  - c. Follow the **New Data Source wizard** as required noting the following steps:
    - On the second panel choose an Oracle database as **Type**.
    - On the third panel specify the name of the connection you have noted before as the **SQL\*Net connect string**, and in the **Signon** section specify a new **User ID** and **Password**.

## Results

You have now connected your Tivoli Common Reporting to an Oracle database.

---

## Enabling Federal Information Processing Standard

Configure Tivoli Common Reporting to use the United States government Federal Information Processing Standards (FIPS) relating to encryption.

### Before you begin

Enable Federal Information Processing Standard for Tivoli Integrated Portal.

### About this task

For more information about FIPS, see <http://csrc.nist.gov/publications/fips/>.

If you have Tivoli Common Reporting installed in distributed environment, perform the steps on the computer where your reporting engine is installed first, and then on the computer where your user interface is installed.

To enable FIPS in Cognos:

## Procedure

1. Stop the Tivoli Common Reporting server by running the stopTCRserver script:

- **Windows** `TCR_component_dir\bin\stopTCRserver.bat`
- **Linux** **UNIX** `TCR_component_dir/bin/stopTCRserver.sh`

2. Run Cognos **Configuration**:

- **Windows** `TCR_component_dir\Cognos\bin\tcr_cogconfig.bat`
- **Linux** **UNIX** `TCR_component_dir/Cognos/bin/tcr_cogconfig.sh`

3. Export your configuration by selecting **File** → **Export As..**. The file contains unencrypted information so it is recommended that you save it in a secure location.
4. Specify `cogstartup.xml` as the name of the file and confirm your choice.
5. Close Cognos **Configuration**.
6. Create an empty file called `FIPS.mode` in the `bin`, `cgi-bin` directories in `TCR_component_dir/cognos` for distributed installation, and for single-computer installation and for user interface in distributed installation also in `TIPProfile` directory located in `TCR_install_dir/profiles`.
7. Delete the following directories:
  - `TCR_component_dir/cognos/configuration/encryptkeypair`
  - `TCR_component_dir/cognos/configuration/signkeypair`
8. Overwrite the `TCR_component_dir/cognos/configuration/cogstartup.xml` with the `cogstartup.xml` file that you saved in step 4.
9. Run Cognos **Configuration**:
  - Windows `TCR_component_dir\Cognos\bin\tcr_cogconfig.bat`
  - Linux UNIX `TCR_component_dir/cognos/bin/tcr_cogconfig.sh`
10. Save the configuration and exit Cognos **Configuration**
11. Start the Tivoli Common Reporting server by running:
  - Windows `TCR_component_dir\bin\startTCRserver.bat`
  - Linux UNIX `TCR_component_dir/bin/startTCRserver.sh`

## Enabling FIPS

You can configure the Tivoli Integrated Portal Server to use Federal Information Processing Standard Java Secure Socket Extension files.

### About this task

Follow these steps to enable FIPS 140–2 for the Tivoli Integrated Portal Server.

### Procedure

1. Configure the application server to use FIPS.
  - a. In the administrative console, click **Security** > **SSL certificate and key management**.
  - b. Select the **Use the United States Federal Information Processing Standard (FIPS) algorithms** option and click **Apply**. This option makes IBMJSSE2 and IBMJCEFIPS the active providers.
2. Configure the application server to use FIPS algorithms for Java clients that must access enterprise beans:
  - a. Open the `install_dir/profiles/TIPProfile/properties/ssl.client.props` file in a text editor.
  - b. Change the `com.ibm.security.useFIPS` property value from `false` to `true`.
3. Configure the application server to use FIPS algorithms for SOAP-based administrative clients that must access enterprise beans:
  - a. Open the `install_dir/profiles/TIPProfile/properties/soap.client.props` file in a text editor.
  - b. Add this line: `com.ibm.ssl.contextProvider=IBMJSSEFIPS`.
4. Configure `java.security` to enable IBMJCEFIPS:

- a. Open the *install\_dir*/java/jre/lib/security/java.security file in a text editor.
  - b. Insert the IBMJCEFIPS provider (com.ibm.crypto.fips.provider.IBMJCEFIPS) before the IBMJCE provider, and also renumber the other providers in the provider list. The IBMJCEFIPS provider must be in the java.security file provider list. See the example at the end of this topic.
5. Enable your browser to use Transport Layer Security (TLS) 1.0:
  - a. Microsoft Internet Explorer: Open the Internet Explorer and click **Tools > Internet Options**. On the **Advanced** tab, select the **Use TLS 1.0** option.
  - b. Firefox: TLS 1.0 is enabled by default.
6. Export Lightweight Third Party Authentication keys so applications that use these LTPA keys can be reconfigured.
  - a. In the navigation pane, click **Settings → Websphere Admin Console** and click **Launch Websphere Admin Console**.
  - b. In the WebSphere Application Server administrative console, select **Settings → Global security**.
  - c. In the Global security page, from the Authentication area, click the **LTPA** link.
  - d. Under **Cross-cell single sign-on**, specify a key file and provide a filename and password for the file that will contain the exported LTPA keys.
  - e. Click **Export keys**.
7. Reconfigure any applications that use Tivoli Integrated Portal Server LTPA keys: To reconfigure the Tivoli SSO service with the updated LTPA keys, run this script: */profiles/TIPProfile/bin/setAuthnSvcLTPAKeys.jacl*.
  - a. Change directory to */profiles/TIPProfile/bin/*
  - b. Start the Tivoli Integrated Portal Server:
    - startServer.bat
    - startServer.sh
  - c. Run the following command:
 

```
wsadmin -username tipadmin -password tipadmin_password -f
setAuthnSvcLTPAKeys.jacl exported_key_path key_password
```

 Where:
    - exported\_key\_path* is name and full path to the key file that was exported.
    - key\_password* is the password that was used to export the key.
8. For SSO, enable FIPS for any other application servers, then import the updated LTPA keys from the first server into these servers:
  - a. Copy the LTPA key file from step 4 above to another application server computer.
  - b. In the navigation pane, click **Settings → Websphere Admin Console** and click **Launch Websphere Admin Console**.
  - c. In the WebSphere Application Server administrative console, select **Settings → Global security**.
  - d. In the Global security page, from the Authentication area, click the **LTPA** link.
  - e. Under **Cross-cell single sign-on**, provide the filename and password from above for the file that contains the exported LTPA keys.
  - f. Click **Import keys**.
9. Run the ConfigureCLI command:
 

```
tip_home_dir\bin\tipcli.bat ConfigureCLI --useFIPS true
```

```
tip_home_dir/bin/tipcli.sh ConfigureCLI --useFIPS true
```

## Example

The IBM SDK `tip_home_dir/java/jre/lib/security/java.security` file looks like this when IBMJCEFIPS is enabled.

```
security.provider.1=com.ibm.crypto.fips.provider.IBMJCEFIPS
security.provider.2=com.ibm.crypto.provider.IBMJCE
security.provider.3=com.ibm.jsse.IBMJSSEProvider
security.provider.4=com.ibm.jsse2.IBMJSSEProvider2
security.provider.5=com.ibm.security.jgss.IBMJGSSProvider
security.provider.6=com.ibm.security.cert.IBMCertPath
security.provider.7=com.ibm.crypto.pkcs11.provider.IBMPKCS11
security.provider.8=com.ibm.security.cmskeystore.CMSProvider
security.provider.9=com.ibm.security.jgss.mech.spnego.IBMSPNEGO
```

---

## Configuring security permissions

Increase the security settings for the Common Reporting user permissions. By default, all the users created, including the one specified during the installation process, have full administrative privileges. You can modify them in Administration.

### About this task

To find out more about Tivoli Common Reporting, version 2.1.1, security settings for authorizations, see Cognos Administration and Security Guide.

By default, all new users created for the Common Reporting portlet are assigned to Everyone user group which is a subset of System Administrators. To increase the security of your reporting solution, edit the members of the System Administrators user group.

### Procedure

1. Log in to Tivoli Integrated Portal:
  - a. Navigate to the following URL: `http://hostname:port/ibm/console`. The default URL is `http://localhost:16310/ibm/console`. Replace *hostname* with the TCP/IP host name of the system where Tivoli Common Reporting is installed, or `localhost` if you are running the web browser on the same system. Replace *port* with the port number that you specified during installation.  
  
**Tip:** On a Windows system where Tivoli Common Reporting is installed locally, you can click **Start** → **Tivoli Common Reporting** → **Launch Reporting Browser** to open the default browser with the correct URL.
  - b. On the Tivoli Integrated Portal login page, log in with a user ID that has access to Tivoli Common Reporting. Access is determined by user roles associated with user IDs. This might be the user ID and password you specified during the installation process, or a user ID and password provided to you by an administrator. The Tivoli Integrated Portal navigation window opens.

**Tip:** Only one logon is required when accessing the reporting interface. The single sign-on option is enabled between the two reporting options.

2. Go to **Reporting** → **Common Reporting**.
3. Open the **Launch** drop-down list, and choose Administration.

4. On the **Security** tab, go to **Users, Groups, and Roles**, and edit the Cognos user namespace.
5. Locate the System Administrators group, and set properties for the group by clicking **More** → **Set properties**.
6. On **Members** tab, click **Add** to add an individual administrative user.
7. Add the administrative user of your choice from the VMMProvider namespace, and click **OK** to save the settings.
8. Remove the Everyone user group from System Administrators by checking the checkbox, and clicking **Remove**.
9. Click **OK** to save the new settings.

## Constraining access to BIRT reports

Manage permissions granted to users or user groups for BIRT reports and capabilities for reports, report sets or folders in the same way as in Cognos reports. By default, permissions and capabilities that user groups or reports are assigned are inherited from the parent entry.

### About this task

You can change the default permissions that specific groups or users have to reports or report packages. You can also change capabilities for reports, report sets and folders.

### Procedure

1. Log in to Tivoli Integrated Portal.
2. Go to **Reporting** → **Common Reporting**.
3. Navigate to the report for which you want to change user permissions and select it.
4. Click **Actions** → **Set properties**.
5. Go to the Permissions tab. The table shows default permissions set for user groups.
6. Select **Override the access permissions acquired from the parent entry** and choose the types of permissions that you want to grant to specific user groups.
7. Go to the Capabilities tab. In the table you can see what capabilities are assigned to reports, report sets or folders.
8. Select **Override the capabilities acquired from the parent entry** to grant and deny capabilities.

### What to do next

To find out more about permissions and capabilities, see IBM Cognos Administration and Security Guide - Permissions and Capabilities.

---

## ODBCINI variable configuration

The **ODBCINI** environment variable sets a common path to the `odbc.ini` file for all products using Tivoli Common Reporting. This variable can be set for non-Windows operating systems only.

Tivoli Common Reporting sets the **ODBCINI** environment variable in its start scripts: `startTCRserver.sh` and `startTCRserver.cmd`. ODBC first looks for the **ODBCINI** variable. If the variable is not found, ODBC tries other system locations.

Tivoli Common Reporting sets the variable to a path in Tivoli Integrated Portal so that it is common for all products using Tivoli Common Reporting.

---

## Configuring portlet functions

Customize your Tivoli Common Reporting installation by modifying the portlet functions.

### Tivoli Integrated Portal configuration

#### About this task

You can perform further Tivoli Integrated Portal configuration, such as security or user registry configuration.

To access the advanced Tivoli Integrated Portal configuration, read the *Performing post-installation tasks* section in Tivoli Integrated Portal information center.



---

## Chapter 5. Common Reporting



The Common Reporting component provided by IBM Cognos 8 Business Intelligence Reporting application embedded in Tivoli Integrated Portal interface contains several additional advanced reporting functions.

### Common Reporting functions

See the top tasks you can perform with the embedded Cognos 8 Business Intelligence Reporting application.

- “E-mailing reports” on page 102
- “Performing ad-hoc reporting” on page 102
- “Web-based report authoring” on page 103

### Using the Common Reporting within the Tivoli Integrated Portal interface

#### Signing in to the interface

You can now use one login and password to access Common Reporting application while keeping the security options. For details, see “Single sign-on (SSO)” on page 7.

#### Viewing the advanced reports in the interface context

Launch the Cognos reports within the context of Tivoli Integrated Portal framework. They can now be displayed with the use of launch in context logic, which generates the appropriate report URLs.

#### Mapping the advanced reporting interface to the original Cognos 8 Business Intelligence Reporting application

The original Cognos interface is modified to match the Tivoli Integrated Portal look and feel.

---

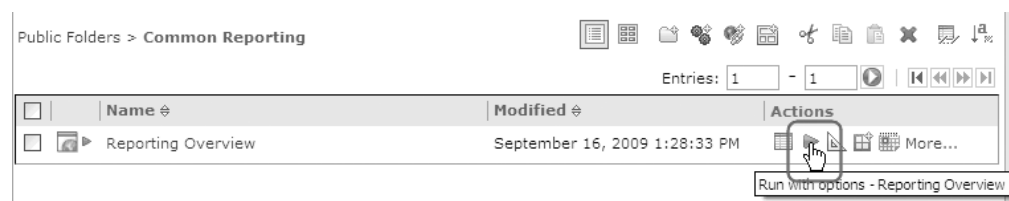
## BIRT reports in Cognos

IBM Cognos 8 supports BIRT reports.

### BIRT reports in Cognos - overview

IBM Tivoli Common Reporting supports BIRT reports known from the previous version.

You can generate BIRT reports in the same way as Cognos reports:



You can identify BIRT reports by the BIRT icon:  .

Import BIRT reports into Cognos with the “trcmd -import” on page 133 command. You can use the report packages created for Tivoli Common Reporting, version 1.1.1, 1.2, and 1.3.

The operations you can perform on BIRT reports are the same as the ones for Cognos reports. You can run, copy, cut, paste, and rename the reports. You can also schedule them and send them via e-mail. You can create report views and save your reports.

**Restriction:** Reports cannot be edited using the Report Studio.

**Important:** IBM Tivoli Common Reporting supports BIRT versions 2.2.1 and 2.2.2 only.

## Running BIRT reports

BIRT reports are generated in the same way as Cognos reports. Run a report and check your infrastructure status.

### Before you begin

You can set file location to save copy of report output to use it again later or for archive purposes. If you decide to use a post-processing script, it must include two parameters:

- **Parameter 1** specifies the name of the file that is the report
- **Parameter 2** specifies the name of the file that is the XML descriptor file.

### About this task

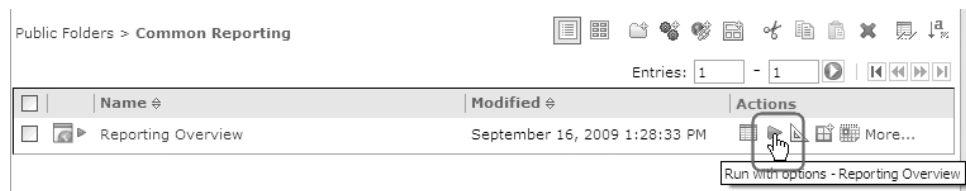
Follow the instructions below in order to generate a report.

**Note:** Drill Through is supported.

### Procedure

1. If you have not done so already, log in to Tivoli Common Reporting and select **Reporting → Common Reporting**

2. Click the  icon.



3. The options window will appear. Choose the options you prefer and click "Run".
4. Set the parameters and click "Finish". The report is generated. You can now save the report to be able to view it at a later time.

## Saving a BIRT report


After you have generated a report, you can save it to be able to instantly view it at a later time with the data from the time of the report creation.

### Before you begin

Generate a report that you want to save.

### About this task

#### Procedure

1. Select **Run**.
2. In the Run with options - Reporting Overview select **Save the report** option.  
The following formats are supported for BIRT reports:
  - HTML
  - PDF
  - DOC
  - XLS
3. Specify the report parameters and click **Finish** to confirm your choice. The report has been saved and you can now view it.
4. To view the saved report:
  - a. Select  **View the output versions for this report** icon.
  - b. Choose the version of the report that you want to view and open the report. Report overview opens.

**Note:** You can also save the report by selecting **Keep this version** → **Save report** in the Reporting Overview pane.

## Creating a Report View of a BIRT report

A Report View is a saved version of a report using data from a particular time. The Report View has the same specification as the source report, but has different properties, such as schedules or output formats.

### About this task

To create a Report View:

#### Procedure

1. Log in to Connection.
2. Go to **Reporting** → **Common Reporting**.
3. Locate the report you want to run using the Navigation or Search tab and select the report.
4. Click **Keep this version** and select **Save as a Report View** from the drop-down list.
5. Specify the name and the location for the Report View.

### Results

The new Report View appears immediately in the table under the source report.

## What to do next

For other ways of creating Report Views, visit IBM Cognos Connection User Guide - Create a Report View.

## Scheduling reports

A report schedule is a schedule for running a report at some time in the future. You can create a schedule to run a report once or repeatedly.

### About this task

To learn how to schedule reports, go to IBM Cognos Connection User Guide - Schedule Management.

## Importing BIRT reports

You can import single reports as well as report packages from Tivoli Common Reporting v. 1.1.1 and 1.2

### About this task

You can import reports and report packages only by using the `trcmd -import` command. The package will be installed in the directory chosen by you within the Cognos Content Manager. For more information and examples, see the `import` command.

## Retrieving the User Name from within a BIRT Report

You can retrieve the user name from the context of a BIRT report.

### About this task

Similarly to previous versions, Tivoli Common Reporting 2.1.1 allows you to retrieve the user name from a BIRT report. Using the following command: `reportContext.getAppContext()`, you can use the application context to obtain the property `com.ibm.tivoli.reporting.api.reportEngine.IUserInfo`, which contains an object that has a method `getUserPrincipal()`. This object will return a `security.Principal` object containing the user name.

**Restriction:** This will only work if information on the current user is available.

### Example

Below you can find a sample code fragment used to retrieve the user name:

```
TCR_IUSER = "com.ibm.tivoli.reporting.api.reportEngine.IUserInfo";
userInfo = reportContext.getAppContext().get(TCR_IUSER);
userName = "unknown";
if (userInfo != null) {
    userName = userInfo.getUserPrincipal();
}
```

## Converting BIRT reports to Cognos reports

Use Conversion Assistant to help you convert your BIRT reports into Cognos. This action is necessary because of the change from BIRT technology to Cognos technology in Tivoli Common Reporting, 2.1.1.

## Before you begin

Ensure that the report you want to convert is working properly.

**Important:** The BIRT report that you want to convert must be a valid Tivoli Common Reporting BIRT report, otherwise the conversion tool will not work.

## About this task

Conversion Assistant converts a BIRT report output to Cognos report specification. It transfers the report layout, images, and data, however there are certain actions that you must perform manually to finish the conversion. Conversion Assistant facilitates the manual part of the process by placing annotations and tips in the report which instruct you what actions you should take.

To convert your BIRT report into Cognos report:

## Procedure

1. Run the “trcmd -convert” on page 127 command.

**Note:** A report that has just been converted may not run properly. You need to open it in **Report Studio** and finish the conversion process manually.

2. Create a data source in Cognos. BIRT data sources are incompatible with Cognos data sources. Cognos data source must connect to the same database as BIRT reports. It is recommended for a Cognos data source to have the same name as a BIRT data source.
3. Associate a model provided by Tivoli for the intended product or create a data model in the Framework Manager, add the data source that you have just created to the data model, and publish it on a server. Then, configure the report using the **Set Properties** icon to be able to use it.
4. Open the converted report in **Report Studio**:
  - a. Log in to the Tivoli Common Reporting interface and go to **Common Reporting**.
  - b. In the **Work with reports** window on the right, choose **Report Studio** from the **Launch** expandable list.
  - c. Open the report that you have just converted.
5. Fill in the report layout with missing elements from the data model:
  - a. **Header** and **Footer** are blank after the conversion. Add any items that you want to be displayed in these sections.
  - b. If you want to display static text, delete the HTML item and replace it with a text item from the toolbox. Do not delete the block item with the text item because it contains the CSS style of the text item.
  - c. If you want to display script, delete the HTML item and replace it with a text item from the toolbox by changing the **Source Type** from **Text** to **Report Expression** in the properties editor. When you do this, you can copy and paste your script into the expression editor by double-clicking on the item. If you want to display JavaScript, ensure that you placed your script between the following tags: `<SCRIPT TYPE='text/javascript'> </SCRIPT>`.
  - d. To display HTML, edit the HTML text within the editor by double-clicking on it.
  - e. Create a query for each dynamic parameter in your report. During the conversion, a stylized parameter prompt page is created containing all the BIRT parameters grouped by parameter group. The grouping is for

aesthetics only. Static parameters are converted completely, dynamic parameters must be linked to a query. Use the parameter query annotation to create a query for each dynamic parameter.

If you want to apply parameters to the data generated for the report, add filters to the appropriate queries.

If your report contains **Report Period** and **Start/End Date** parameters, replace the parameter prompts with the **TCR Date Range Prompt** that you can find in the toolbox. To keep the same style, copy and paste the **Date Filter** into the old **Report Period** prompt cell and the **Date Range** prompt into the old **Start Date** prompt cell. Delete the **End Date** parameter row and follow the instructions for applying the query filter.

- f. If you want to display the parameter values dynamically, change the **Source Type** property of the static text item in the properties from **Text** to **Report Expression**. Double click the text item and select the Parameters tab in the editor, then drag and drop the appropriate parameter into the editor.
- g. Organize your data into charts by creating or editing a query that references the data set annotations. To do this, select the Query tab, then drag and drop the data items into the series, categories, and measures where applicable. Ensure that the **Query** property value matches the name of the query that you wish to use. You can use the image beside each chart as a reference. Stylize the chart using the properties editor.
- h. Create tables by creating or editing a query referencing the data set annotations. Select the Query tab in the report editor, then drag and drop the data items into the columns of the Cognos list. Ensure that the **Query** property value matches the name of the query that you wish to use. Stylize the chart using the properties editor.
- i. Create heat charts and cross tabs for your report by creating or editing a query referencing the data cube annotations. To do this, select the Query tab in the report editor, then drag and drop the data items into the columns, rows, and corner of the cross tab. Ensure that the **Query** property value matches the name of the query that you wish to use.

For heat charts, you need to delete the list that was generated during report conversion and add a cross tab item in its place. Note any styles applied to the list so you can add them to the new cross tab.

Add conditional styling to the cross tab by right clicking the cross tab intersection and selecting **Style** → **Conditional styles** for displaying different styles for different values. Use advanced conditional styling when using expressions to define the styles for each value; otherwise use a regular conditional style.

- j. Create queries for your reports. Charts, tables, and parameters require a query to retrieve and display data. Each chart and table contains an annotation that states which data set it used in the BIRT report. You can find the detailed annotations for each data set at the bottom of the report. These annotations contain the data set's SQL query before and after the data set's open script was run, and all filters and computer columns.

To create a query navigate to the Query explorer page and drag and drop a query item from the toolbox into the editor. Double-click a query to edit it and drag and drop data items from the model into the Data Items editor.

To add a filter to a query, navigate to the Query explorer page and select a query. Select **Data** → **Filters** from the menu or click the **Filters** button.

- k. If your Tivoli Common Reporting is installed in distributed environment, copy the report images to all computers with user interface installed to the following location: TCR\_install\_dir\profiles\TIPProfile\installedApps\

TIPCell\IBM Cognos 8.ear\p2pd.war\tivoli and to all computers with the reporting engine installed to the following location: CR\_install\_dir\cognos\webcontent\tivoli.

6. Test if the converted reports work properly. For more information, see “trcmd -run” on page 138 and “trcmd -distribute” on page 132.

## What to do next

To find out more, go to IBM Cognos 8 Business Intelligence information center.

## Known limitations

This section describes Conversion Assistant limitations caused by technology changes in Tivoli Common Reporting, 2.1.1

At the present moment, the following limitations are known to exist:

- Because of the incompatibility issues, BIRT data source script and data sources are not transferred to Cognos reports. Additionally, transferring items such as inserting SQL directly into Cognos-based report would lose the added benefit this technology brings.
- The new Cognos-based format does not support JavaScript during report generation.
- Web services data sources are not automatically moved from BIRT to Cognos reports.
- Globalization is not supported. The converted report is in the language in which it was generated. However, you can globalize the new report in the Report Studio after the conversion.
- oda data cube is not supported in Cognos reports.

## Administering BIRT reports

Learn to configure the data sources for your reports.

### Setting up JDBC data sources

Some reports might require that you set up JDBC data sources to provide report data. You can use either of two methods to configure JDBC data sources for these reports.

### Before you begin

**Restriction:** BIRT and Cognos have separate data sources that are created and managed differently. JDBC and JNDI data sources are only supported for BIRT reports. Cognos is using native drivers.

### Configuring JDBC data sources using JNDI:

You can use WebSphere Application Server scripting to configure JDBC providers and data sources for your reports, and to configure JNDI names for reports to use when accessing data sources. If you use this method, the data source properties for reports can access the data source using JNDI without directly specifying the JDBC information.

### Before you begin

Data sources are configured in the embedded WebSphere Application Server environment. To use scripting, you must start the WebSphere wsadmin tool. For

more information, refer to the WebSphere Application Server documentation at [http://publib.boulder.ibm.com/infocenter/wasinfo/v7r0/topic/com.ibm.websphere.nd.iseries.doc/info/seriesnd/ae/txml\\_script.html?](http://publib.boulder.ibm.com/infocenter/wasinfo/v7r0/topic/com.ibm.websphere.nd.iseries.doc/info/seriesnd/ae/txml_script.html?).

Any JDBC driver properties required by your database vendor must also be set as data source properties in the WebSphere Application Server configuration. For more information, refer to the WebSphere Application Server documentation and the documentation for your database software.

If you have Tivoli Common Reporting installed in distributed environment, the reporting engine runs on a Tomcat web server. In such case, the JNDI data sources must be configured on that server. For more details, see Tomcat documentation.

### Procedure

1. Configure a JDBC provider.
2. Configure a JDBC data source and its JNDI name.

### Configuring JDBC data sources for direct access:

You can set up JDBC drivers for direct access by reports without using JNDI.

### About this task

To set up direct JDBC access:

### Procedure

1. Copy the required JDBC driver files to the following directory:

*TCR\_component\_dir*\lib

\birt-runtime-2\_2\_2\ReportEngine\plugins\org.eclipse.birt.report.data.oda.jdbc\_2.2.2.r22x\_v200712

(Replace *tcr\_install\_dir* with the name of the Tivoli Common Reporting installation directory.)

2. For a DB2 data source, copy the DB2 JDBC drivers as well as the license jar file to the same location. You can copy db2jcc.jar and db2jcc\_licence\_cu.jar file on the DB2 server system from location:

C:\%Program Files%\IBM\SQLLIB\java

or download it from the Web site.

3. Use the “trcmd -modify” on page 136 command to specify the required JDBC information (including the URL, driver, user ID, and password).

## Known limitations

We have used our best efforts in order to ensure proper support of BIRT reports and achieve as highest compatibility with Tivoli Common Reporting v.1.2 and v.1.3 as possible. However, due to the unavoidable changes of technology some features may no longer be operational. IBM Cognos, version 8.4.1 Fix Pack 3 works properly for both single-computer installation and distributed installation, however you may encounter problems with specific Web container APIs.

At the present moment, the following limitations are known to exist:

1. BIRT reports cannot be imported using the Web user interface. You have to use the -import command. For detailed instructions, see “trcmd -import” on page 133.



2. Tivoli Common Reporting 2.1.1 can work on either WebSphere Application Server or on Apache Tomcat. As a result, you should not rely on server-specific API. For reports using the Java code, the `java.jar` files should be stored inside the resources directory, unlike in Tivoli Common Reporting v.1.2, in which they were stored in the `<TCR_install_dir>\lib` directory.
3. In contrast to Cognos reports, BIRT reports are stored not in a data base, but in a separate folder on the hard disc. Consequently, you cannot export a full report package using Cognos UI (the package would include Cognos reports and links to the reports form the hard drive, which would not work on a different work station).

---

## Working with reports



This section contains topics that provide instructions on how to work with reports using IBM Cognos 8 Business Intelligence Reporting.

Use the Common Reporting user interface to navigate the reports.

### About this task

This is a simple reference instruction for creating, publishing, importing, and running your reports.

### Procedure

1. Create a data source for your reports with IBM Cognos 8 Framework Manager and publish your report package.

**Note:** Creating data sources and publishing report packages requires report modeling experience. Use IBM Cognos 8 Framework Manager to model reports. This is a separately installed component of Tivoli Common Reporting available from your installation media. For information on how to create data sources and publish packages, see *IBM Cognos 8 Framework Manager User Guide*.

2. Import your report package.
3. Run and distribute your reports.

## Running the sample overview report

After you have installed Tivoli Common Reporting 2.1.1, you can run a check on the reporting functionality by running your first sample report. The report can also be run for an overall reporting overview.

### Before you begin

You can set file location to save copy of report output to use it again later or for archive purposes. If you decide to use a post-processing script, it must include two parameters:

- **Parameter 1** specifies the name of the file that is the report
- **Parameter 2** specifies the name of the file that is the XML descriptor file.

## Procedure

1. Log in to your reporting interface by following the login instructions .
2. Navigate to the **Common Reporting**. A new tab opens on the right.
3. Open the out-of-the-box **Common Reporting** package in your **Public Folders** view.
4. Click on **Reporting Overview** report to run it.
5. Specify the date parameters to limit the time frame of the report.

**Tip:** If you run this as an overview of your reporting activities, you can also limit the scope of data to a given report package, a specific report, or a report owner by specifying the appropriate filters.

6. Click **Finish**. The report is now generated.

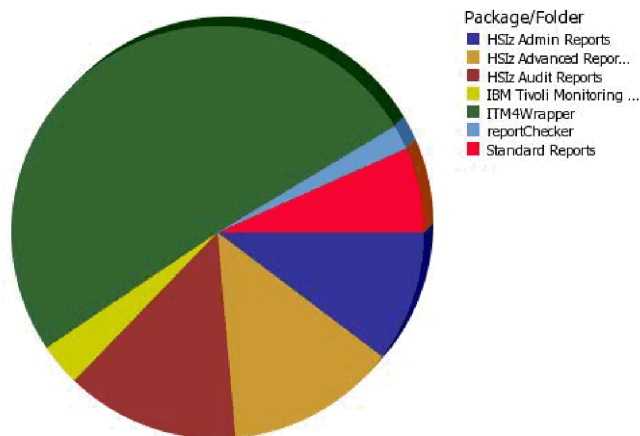
## Sample overview report

Tivoli Common Reporting comes with a sample report to allow you to monitor your reporting activity.

### Tivoli Common Reporting: Reporting Overview

The report available from **Common Reporting** panel shows an inventory of report packages and reports created in the time period specified with date parameters. The pie chart shows the percentage value of reports from one package in the overall number of all the reports and the table below gives the number of reports per given package.

Date Filter	All		
Start Date	Jan 1, 1970 12:00:00 AM	End Date	Jun 30, 2010 11:59:59 PM
Package/Folder	All	Report	All
Owner	All		



**Reports**

Package/Folder	Reports
HSiz Admin Reports	6
HSiz Advanced Reports	8
HSiz Audit Reports	8
IBM Tivoli Monitoring OS Agents Reports	2
ITM4Wrapper	30
reportChecker	1
Standard Reports	4
<b>Summary</b>	<b>59</b>


## Importing report packages

Import report packages to your workspace using the user interface and start using an existing report model and reports. This importing method can be used for Cognos reports only.

### Before you begin

You have to obtain a report package you want to work with. You can download packages from ISML library, or you can create one using the **Content Administrator** interface. All the packages you want to import have to be stored in the deployment folder in *TCR\_component\_dir\cognos\deployment*.

### Procedure


1. Log in to the Tivoli Common Reporting interface, and go to **Common Reporting**.
2. In the **Work with reports** window on the right choose the **Administration** from the **Launch** drop-down list.
3. Go to **Configuration** tab, and open the **Content Administration** section.
4. Create new package import by clicking . This opens a **New Import wizard**.
5. Follow the wizard to import a new package.

**Tip:** For more information, see the IBM Cognos 8 Reporting Getting Started Installation Guide 8.4.1.

## Exporting Cognos report packages

Export your report package to be able to use it for example, on a different Tivoli Common Reporting instance.

### Procedure

1. Log in to the Tivoli Common Reporting user interface, and go to **Common Reporting**.
2. In the **Work with reports** window on the right, choose the **Administration** from the **Launch** expandable list.
3. Go to the **Configuration** tab, and open the **Content Administration** section.
4. Export a new package by clicking .
5. Follow the wizard to export a package.

## Copying report images to the Tivoli Common Reporting server

Cognos report packages do not contain images, so after you have imported a Cognos-based report package, you need to copy the static images to a folder on your computer for the images to display.

### Before you begin

Import a report package.

## About this task

Cognos report packages do not contain images; this is why you need to copy the images manually. The image location depends on the installation scenario that you chose.

### Procedure

1. For single-computer installation: Copy the images to the following location:  
*TCR\_install\_dir\profiles\TIPProfile\installedApps\TIPCell\IBM Cognos 8.ear\p2pd.war\tivoli*
2. For distributed installation:
  - a. Copy the images to all computers with user interface installed to the following location: *TCR\_install\_dir\profiles\TIPProfile\installedApps\TIPCell\IBM Cognos 8 Servlet Gateway.ear\ServletGateway.war\tivoli*
  - b. Copy the images to all computers with Tivoli Common Reporting engine, to the following location: *TCR\_component\_dir\cognos\webcontent\tivoli*

## E-mailing reports

E-mail your reports to share them with the group of people who do not have access to the reporting portal.

### Before you begin

To be able to distribute reports you have to have a connection to a mail server specified. To learn more about that, see the IBM Cognos 8 Business Intelligence Installation and Configuration Guide.

### Procedure

1. Once you have run your report, you can distribute it by clicking **Keep this version**, and choosing **Email report** from the drop-down list.
2. Set the e-mail options, and checking off whether you want to include a link to the report or attach it.
3. Click **OK** to distribute the report.

### What to do next

Learn about other ways to distribute reports, by looking at Connection User Guide.

## Scheduling reports

A report schedule is a schedule for running a report at some time in the future. You can create a schedule to run a report once or repeatedly.

### About this task

To learn how to schedule reports, go to IBM Cognos Connection User Guide - Schedule Management.

## Performing ad-hoc reporting

Create reports ad-hoc by using simple queries and formatting.

### Before you begin

To perform ad-hoc reporting you have to have some report packages imported.

## Procedure

1. Log in to the Tivoli Common Reporting interface, and go to **Common Reporting**.
2. In the **Work with reports** window on the right choose the **Query Studio** from the **Launch** drop-down list.
3. Select a package to work with. This opens a **New** window where you can create the new report.
4. From the navigation on the left drag and drop data items you want to include in your report.

**Tip:** Change the appearance of the data by using the menu icons at the top.

5. Once your data and appearance is edited, save the report by specifying a **Name**, and optionally a **Description**, and a **Screen tip**.

## Results

You have now created your ad-hoc report.

## What to do next

Learn more about authoring the reports in the IBM Cognos Query Studio User Guide.

## Web-based report authoring

Create reports in a Web-based tool that professional report authors use to build sophisticated, multiple-page, multiple-query reports against multiple databases. You can create any reports that your company requires, such as invoices, statements, and weekly sales and inventory reports.

## Procedure

1. Log in to the Tivoli Common Reporting interface, and go to **Common Reporting**.
2. In the **Work with reports** window on the right choose the **Report Studio** from the **Launch** drop-down list. This opens up the **Report Studio**, a Web-based application.
3. Use the menu controls to create a new report or edit existing ones by formatting the layout and manipulating the data that appears in the report.
4. Save your report, and run it anytime you need to present on its underlying data.

## What to do next

Learn more about Web-based report authoring in *Report Studio Professional Authoring User Guide* available on clicking **F1** from the **Report Studio**.

## Search path

A search path is a basic expression in IBM Cognos that allows you to find objects. It is one of the parameters that you need for performing operations on reports using commands.

You can use the search path to find one particular object or a set of objects within a folder using an asterisk \* as a wildcard character. If you want to search for a report or a report package whose full name you do not know, you can use the

contains function to search for all reports or report packages that contain the specified expression. The basic parameters of a search path are location steps that reflect the structure of catalogs on your computer. Location steps are separated by a slash / and can be followed by one or more predicate. A predicate is an expression that filters an object set. It is enclosed in square brackets: [].

All predicates within a location step must be true for an object to be found. You can use logical or comparison operators and searchable properties as a predicate expression. Use @ to specify the property name.

The list below contains examples and descriptions of search path parameters that you can use to construct your search path:

~ Selects the account object associated with the current user.

~~ Selects the session object associated with the current user.

/ Selects the root.

/\* Selects the child objects of the root. The asterisk (\*) is a wildcard character.

**//folder**

Selects all folder objects in the content store. When a path starts with two slashes (//), all objects in the content store that fulfill the specified criteria are selected. In this case, the selected objects must be instances of the class folder.

**//folder | //report**

Selects all folder objects and all report objects in the content store. The vertical bar (|) specifies that the results of two search paths will be combined.

**//\***

Selects all objects in the content store. The asterisk (\*) is a wildcard character.

**/configuration/\***

Selects the configuration object and all its descendants. The two slashes specify all descendant objects of the current object (configuration), and the current object itself. The text between the slashes is called a location step. The asterisk (\*) is a wildcard character.

**/content//folder/report/ parent::folder**

Selects every descendant of the content object that is a folder object and that has at least one child report object. In the parent::folder expression, parent is an axis and folder is a node test.

**/content/package/folder [@name=' Documentation Report Samples']/\***

Selects all child objects in the Documentation Report Samples folder. Expressions enclosed in square brackets are predicates used to filter a set of objects. /content/package/folder [@name=' Documentation Report Samples']/\* The at sign (@) specifies a property name. The asterisk (\*) is a wildcard character.

**/content/package/folder/ report[contains (@name, 'Product List')]**

Selects all report objects in the path /content/package/folder with names that contain the string Product List. The predicate contains a call to the function contains. The at sign (@) specifies a property name.

**storeID ("1e08b01ef26b496aac06a14f5ae9a572")/ /report**

Selects all report objects that are descendants of the object that has the storeID with the value "1e08b01ef26b496aac06a14f5ae9a572".

**CAMID(":")/\*[@routingHints]**

Selects all objects in the Cognos namespace where the routingHints property is

not nil. Expressions enclosed in square brackets are predicates used to filter a set of objects. CAMID(":") specifies the Cognos namespace. The at sign (@) specifies a property name. The asterisk (\*) is a wildcard character.

#### **CAMID(":")/\*[not(@routingHints)]**

Selects all objects in the Cognos namespace where the routingHints property is nil. Expressions enclosed in square brackets are predicates used to filter a set of objects. CAMID(":") specifies the Cognos namespace. The at sign (@) specifies a property name. The asterisk (\*) is a wildcard character.

### **Example**

The search path below can be used to find a report named Order Product List Report:

```
/content/package[@name='GO Sales and Retailers']/  
folder[@name='Documentation Reports']/report[@name='Order Product List  
Report']
```

The following search path finds all reports whose name contains the Product List expression:

```
/content/package[@name='GO Sales and Retailers']/  
folder[@name='Documentation Reports']/report[contains(@name, 'Product  
List')]
```

If you replace the report name with a wildcard character, you can use the search path to select all objects in the Documentation Reports folder:

```
/content/package[@name='GO Sales and Retailers']/  
folder[@name='Documentation Reports']/*
```

### **Checking the search path of a report**

If you do not know the search path of a particular report, you can check it using Cognos Connection.

#### **About this task**

To check the search path of a report, perform the following steps:

#### **Procedure**

1. Log in to Connection.
2. In the Actions column, click the "Set properties" icon for a particular row.
3. Under the first tab "General", click "View the search path, ID and URL" near the Location property.
4. The search path of the report will be displayed in the first text field.





---

## Chapter 6. Troubleshooting and support



This section provides information to help you identify and resolve problems that might occur when using Tivoli Common Reporting. Learn how to use log files to determine the problem.

---

### Using log files for troubleshooting

You can troubleshoot problems by enabling the collection of detailed log and trace information also within WebSphere Application Server.

#### About this task

By default, only Cognos 8 Business Intelligence Reporting errors are logged in the logs folder in the Cognos installation directory. To enable more detailed tracing:

#### Procedure

1. Open the PogoLogkitConfig\_FullDebug.xml file from the following location:
  - **For the distributed environment** - the machine with the Cognos-based Tivoli Common Reporting engine installed: `<Cognos_install_dir>webapps\p2pd\WEB-INF`
  - **For the single-computer installation** - `TCR_install_dir\profiles\TIPProfile\installedApps\TIPCell\Cognos 8.ear\p2pd.war\WEB-INF`
2. Change the name of the file to PogoLogkitConfig.xml, and save it.
3. Restart the Cognos to apply the changes.

### Enabling detailed log and trace information

You can troubleshoot problems by enabling the collection of detailed log and trace information.

#### About this task

To enable detailed tracing:

#### Procedure

1. In the Tivoli Integrated Portal navigation panel, click **Settings** → **WebSphere Admin Console**.
2. Select **Troubleshooting** → **Logs and trace**.
3. In the Logging and Tracing console module, click *serverName* ► **Change Log Detail Levels**. The default server name is server1.
4. Click either the Configuration or Runtime tab:
  - Click the Configuration tab if you want to make persistent changes to the log and trace levels. These changes will take effect after the next server restart.

- Click the Runtime tab if you want to make changes to the log and trace levels for the current session. These changes take effect immediately and do not require a server restart.

If you use the Runtime tab, you can select the **Save runtime changes to configuration as well** check box to make the changes persistent as well as applying to the current session.

5. Expand the list of installed packages and click **com.ibm.tivoli\*** → **com.ibm.tivoli.reporting\***.
6. Click **Message and Trace Levels ► finest** and confirm your choice.
7. If you are making persistent configuration changes, click **Save** when prompted to save the changes to the master configuration.
8. Stop and restart the Tivoli Common Reporting server.

## Results

Log and trace files are located in the `/profiles/TIPProfile/logs/serverName` subdirectory of the Tivoli Common Reporting installation directory. Standard informational log messages are written to the `SystemOut.log` file; detailed trace messages are written to the `trace.log` file.

---

## Troubleshooting the installation

Identify and resolve problems that might occur when you are installing, upgrading or uninstalling the product.

### Tivoli Common Reporting does not install after upgrading and uninstallation

#### Symptoms

After upgrading Tivoli Common Reporting instance to version 2.1 and then uninstalling version 2.1, Tivoli Common Reporting 2.1 does not install again.

#### Resolving the problem

1. Remove the program installation directory.
2. Install Tivoli Common Reporting into a different directory.
3. Set the `IAGLOBAL_ENABLE_OPTIONAL_PRECHECKS` property to false.

### Installation fails because the Deployment Engine fails to initialize

#### Symptoms

Installation or upgrade fails with the following error: Deployment Engine failed to initialize.

#### Resolving the problem

1. Go to `DE_install_dir/logs` and remove all `.lock_*` files.
2. Ensure that all installer processes are closed. To do this run the following commands:
  - **Linux** **UNIX** `ps -ef | grep java | grep -v grep`
  - **Windows** `tskmgr`, look for Java processes pointing to the `tmp` parameter

and kill the processes.

3. Remove the temporary files from previous unfinished installations.
  4. Ensure that the Java process connected with Deployment Engine derby is closed by running the following command:
    - **Linux** **UNIX** `ps -ef | grep derby | grep -v grep`
    - **Windows** `tskmgtr`, and look for Java process with a parameter pointing to the derby database and Deployment Engine installation directory
- and kill the processes.

## Non-root installation fails

### Symptoms

When running the Tivoli Common Reporting installer on a RedHat Linux operating system, the following link error is reported:

```
java.lang.UnsatisfiedLinkError: java/awt/Component.initIDs()V
at java.awt.Component.<clinit>(Component.java:595)
at java.lang.J9VMInternals.initializeImpl(Native Method)
at java.lang.J9VMInternals.initialize(J9VMInternals.java:192)
at java.lang.J9VMInternals.initialize(J9VMInternals.java:157)
at java.lang.J9VMInternals.initialize(J9VMInternals.java:157)
at com.zerog.ia.installer.util.BidiUtilImpl.setDefaultLocale(DashoA10*..)
at ZeroGay.a(DashoA10*..)
at com.zerog.ia.installer.LifeCycleManager.j(DashoA10*..)
at com.zerog.ia.installer.LifeCycleManager.e(DashoA10*..)
at com.zerog.ia.installer.LifeCycleManager.a(DashoA10*..)
at com.zerog.ia.installer.LifeCycleManager.a(DashoA10*..)
at com.zerog.ia.installer.Main.main(DashoA10*..)
at sun.reflect.NativeMethodAccessorImpl.invoke0(Native Method)
at sun.reflect.NativeMethodAccessorImpl.invoke(NativeMethodAccessorImpl.java:64)
at sun.reflect.DelegatingMethodAccessorImpl.invoke(DelegatingMethodAccessorImpl.java:43)
at java.lang.reflect.Method.invoke(Method.java:615)
at com.zerog.lax.LAX.launch(DashoA10*..)
at com.zerog.lax.LAX.main(DashoA10*..)
```

### Causes

The problem is in the InstallAnywhere code that requires extra libraries to be installed into the system.

### Resolving the problem

Run the installer in debug mode to discover what kind of library is missing:

1. Set the installer for DEBUG mode by running the export `LAX DEBUG=1` command.
2. Run the installer.
3. Collect the output.

Below is an exemplary system output:

```
Exception in thread "main" java.lang.UnsatisfiedLinkError:
/tmp/install.dir.20635/Linux/resource/jre/jre/bin/xawt/libmawt.so
(libXft.so.2: cannot open shared object file: No such file or directory)
at java.lang.ClassLoader.loadLibraryWithPath(ClassLoader.java:957)
at java.lang.System.load(System.java:441)
at java.lang.ClassLoader.loadLibraryWithPath(Native Method)
at java.lang.ClassLoader.loadLibraryWithPath(ClassLoader.java:949)
at java.lang.ClassLoader.loadLibraryWithClassLoader(ClassLoader.java:926)
at java.lang.System.loadLibrary(System.java:453)
```

```

at sun.security.action.LoadLibraryAction.run(LoadLibraryAction.java:77)
at java.security.AccessController.doPrivileged(AccessController.java:193)
at sun.awt.NativeLibLoader.loadLibraries(NativeLibLoader.java:75)
at sun.awt.DebugHelper.<clinit>(DebugHelper.java:57)
at java.lang.J9VMInternals.initializeImpl(Native Method)
at java.lang.J9VMInternals.initialize(J9VMInternals.java:192)
at java.awt.Component.<clinit>(Component.java:582)
at java.lang.J9VMInternals.initializeImpl(Native Method)
at java.lang.J9VMInternals.initialize(J9VMInternals.java:192)
at java.lang.J9VMInternals.initialize(J9VMInternals.java:157)
at java.lang.J9VMInternals.initialize(J9VMInternals.java:157)
at com.zerog.ia.installer.util.BidiUtilImpl.setDefaultLocale(DashoA10*..)
at ZeroGay.a(DashoA10*..)
at com.zerog.ia.installer.LifeCycleManager.j(DashoA10*..)
at com.zerog.ia.installer.LifeCycleManager.e(DashoA10*..)
at com.zerog.ia.installer.LifeCycleManager.a(DashoA10*..)
at com.zerog.ia.installer.LifeCycleManager.a(DashoA10*..)
at com.zerog.ia.installer.Main.main(DashoA10*..)
at sun.reflect.NativeMethodAccessorImpl.invoke0(Native Method)
at sun.reflect.NativeMethodAccessorImpl.invoke(NativeMethodAccessorImpl.java:64)
at sun.reflect.DelegatingMethodAccessorImpl.invoke(DelegatingMethodAccessorImpl.java:43)
at java.lang.reflect.Method.invoke(Method.java:615)
at com.zerog.lax.LAX.launch(DashoA10*..)
at com.zerog.lax.LAX.main(DashoA10*..)
java.lang.UnsatisfiedLinkError: java/awt/Component.initIDs()V
at java.awt.Component.<clinit>(Component.java:595)
at java.lang.J9VMInternals.initializeImpl(Native Method)
at java.lang.J9VMInternals.initialize(J9VMInternals.java:192)
at java.lang.J9VMInternals.initialize(J9VMInternals.java:157)
at java.lang.J9VMInternals.initialize(J9VMInternals.java:157)
at com.zerog.ia.installer.util.BidiUtilImpl.setDefaultLocale(DashoA10*..)
at ZeroGay.a(DashoA10*..)
at com.zerog.ia.installer.LifeCycleManager.j(DashoA10*..)
at com.zerog.ia.installer.LifeCycleManager.e(DashoA10*..)
at com.zerog.ia.installer.LifeCycleManager.a(DashoA10*..)
at com.zerog.ia.installer.LifeCycleManager.a(DashoA10*..)
at com.zerog.ia.installer.Main.main(DashoA10*..)
at sun.reflect.NativeMethodAccessorImpl.invoke0(Native Method)
at sun.reflect.NativeMethodAccessorImpl.invoke(NativeMethodAccessorImpl.java:64)
at sun.reflect.DelegatingMethodAccessorImpl.invoke(DelegatingMethodAccessorImpl.java:43)
at java.lang.reflect.Method.invoke(Method.java:615)
at com.zerog.lax.LAX.launch(DashoA10*..)
at com.zerog.lax.LAX.main(DashoA10*..)
Invocation of this Java Application has caused an InvocationTargetException. This application will n

```

In this example, the missing library is the following:

libXft.so.2: cannot open shared object file: No such file or directory

Install the rpm related to this library.

## After upgrading from Tivoli Common Reporting 1.3, the reporting engine does not work

### Symptoms

After upgrading from version 1.3 to version 2.1, the reporting engine does not start.

### Causes

The problem appears most probably because you have manually modified the *TCR13\_instal\_dir\products\tcr\Cognos\c8\webapps\p2pd\WEB-INF\lib\* directory, for example by adding a DB2 driver for an external content store.

## Resolving the problem

Modify the *TCR21\_install\_dir*\cognos\webapps\p2pd\WEB-INF\lib\ directory in the same way as you have modified *TCR13\_instal\_dir*\products\tcr\Cognos\c8\webapps\p2pd\WEB-INF\lib\.

## Installation using the install.sh script fails

### Symptoms

When running the `install.sh` script using the relative path, the installation fails and the following error occurs: Deployment Engine failed to initialize.

### Resolving the problem

Run the installation command again specifying the absolute path to the `install.sh` script.

## Installation fails on a system with Turkish locale

### Symptoms

The installation of Tivoli Common Reporting fails on a system with Turkish locale.

### Resolving the problem

Change your system locale to English for the time of the installation. When the installation has finished, change the locale back to Turkish.

## The Work with reports panel displays an error

### Symptoms

This problem occurs if you have installed Tivoli Common Reporting, logged into the reporting console and then uninstalled Tivoli Common Reporting without logging out of the console. If, after performing these steps, you install Tivoli Common Reporting again and try to open the Work with reports panel, you get the following error: PRS-CSE-1258 Problem encountered during verification of session capability information.

### Resolving the problem

To resolve the problem, restart the web browser or delete the cookie files.

## Cognos Business Intelligence does not install on Windows 2008 64-bits R2

### Symptoms

Cognos does not officially support Windows 2008 64-bits R2 and the installer fails if you try to install it on this system. You can test it by double-clicking the *unpacked\_image*\TCR21Installer\COI\DeploymentSteps\FCI INST COG\FILES\win32\issetup.exe. An error message saying that you cannot install on this computer appears.

### Resolving the problem

Run Cognos in compatibility mode.

1. Unpack the Tivoli Common Reporting installation image.
2. Navigate to the *unpacked\_image*\TCR21Installer\COI\DeploymentSteps\FCI\_INST\_COG\FILES\win32 and locate the *issetup.exe* file.
3. Right-click the file, select **Properties**, go to the **Compatibility** tab and select to **Run this program in compatibility mode for Windows XP**.
4. Install Tivoli Common Reporting.

## Cognos Business Intelligence does not install on Linux

### Symptoms

Cognos does not install and the following error appears:

Error while loading shared libraries: libXm.so.3: cannot open shared object file: No such file or directory

### Resolving the problem

Cognos is linked to the openmotif library 2.2.X that contains a symbolic link to libXm.so.3. When libXm.so.3 library is upgraded, the openmotif library is upgraded as well. Newer versions of openmotif do not have the symbolic link to libXm.so.3 but rather to libXm.so.4, while Cognos requires libXm.so.3.

Create a new symbolic link: `ln -s libXm.so.4 libXm.so.3` and return to the installer.

## UDA-SQL-0031 Unable to access database: QE-DEF-0285

### Logon failure

### Symptoms

Testing a database signon returns an error saying that the password is invalid, despite the fact that the credentials used are correct.

### Resolving the problem

After you have installed Tivoli Common Reporting and the remote database, add the following lines to the *startTCRserver.sh* script located in *TCR\_component\_dir*:

```
#
# Setup Cognos and DB2 Environment
#
LIBPATH=/opt/IBM/tivoli/tipv2Components/TCRComponent/cognos/bin; export LIBPATH
PATH=$PATH:/opt/IBM/tivoli/tipv2Components/TCRComponent/cognos/bin; export PATH

. /home/db2inst1/sql1lib/db2profile
```

## Uninstalling the Deployment Engine to complete Tivoli Common Reporting manual uninstallation

Uninstalling the Deployment Engine if there are other products using it is risky and may cause the products to work improperly. To avoid this situation, uninstall the Deployment Engine using Tivoli Common Reporting scripts.

### Symptoms

Manual uninstallation of Tivoli Common Reporting involves removing the Deployment Engine, and therefore cannot be completed if there are other products using the Deployment Engine.

## Resolving the problem

Create the following scripts to uninstall the Deployment Engine:

### Windows

```
@echo off
setlocal

SET TCR_HOME=%1%
SET COMMON_SETENV1="%ProgramFiles%\IBM\Common\acsi\setenv.cmd"
SET COMMON_SETENV2="%ProgramFiles(x86)\IBM\Common\acsi\setenv.cmd"
IF EXIST %COMMON_SETENV1% GOTO COMMONSET1
IF EXIST %COMMON_SETENV2% GOTO COMMONSET2
GOTO EMPTYSET

:COMMONSET1
CALL %COMMON_SETENV1%
GOTO FOUND
:COMMONSET2
CALL %COMMON_SETENV2%

:FOUND
call listIU -v | findstr -v SoftwareIUTypeID | findstr RootIUTypeID | findstr /i %TCR_HOME% > %TEMP%\tempDE.file
for /F "tokens=4 delims=[,]" %%j IN (%TEMP%\tempDE.file) do call deleteRootIU %%j %TCR_HOME%
GOTO endlocal

:EMPTYSET
echo Deployment Engine not installed on the system
exit /b 1

:endlocal
exit /b 0
endlocal
```

### Linux

### UNIX

```
#!/bin/sh

TCR_HOME=$1
arch=`uname -s`
if [ `echo $arch | grep SunOS` ]; then
    USERNAME="/usr/ucb/whoami"
else
    USERNAME=`whoami`
fi
setenvcmd="$HOME/.acsi_${USERNAME}/setenv.sh"

# First look in the users location
if [ -f $setenvcmd ]; then
    . "$setenvcmd"
else
    # Then try the common location
    setenvcmd='/var/ibm/common/acsi/setenv.sh'
    export setenvcmd
    if [ -f $setenvcmd ]; then
        . "$setenvcmd"
    else
        echo 'Deployment Engine not installed on the system'
        exit 3
    fi
fi

tmpTCRfile="/tmp/$$.out"
```

```
listIU.sh -v | grep TCR | grep -v SoftwareIUTypeID | grep RootIUTypeID | grep $TCR_HOME | awk -F[ '{
while read line
do
    deleteRootIU.sh $line $TCR_HOME
done<$tmpTCRfile

rm $tmpTCRfile
echo 'Operation completed successfully'
exit 0
```

Run the script twice, for the first time specifying *TCR\_install\_dir* as path, and for the second time specifying *TCR\_component\_dir* as path.

---

## Troubleshooting Common Reporting

Identify and resolve problems that might occur when you are using the product. This section contains problems that might occur when working with your reports, as well as Cognos-related problems.

### Browsing images does not work in Report Studio

#### Symptoms

When adding image to a report in Report Studio, you cannot browse images. The image directory is displayed as empty.

#### Causes

WebSphere Application Server does not support WebDav.

#### Resolving the problem

Type the image URL as a relative path. For example: ../tivoli/tcr\_common/images/tivoli.gif

### Your login session expires while working with the Common Reporting portlet

#### Symptoms

While working with Common Reporting portlet, your session expires and a Cognos authentication window appears asking you to provide your user name and password.

#### Resolving the problem

Click **Cancel**, return to Tivoli Integrated Portal login screen, provide your credentials, and open the Common Reporting portlet again.

### ODBC System DSN connections fail to test from the Tivoli Common Reporting server

#### Symptoms

On 64-bit Windows operating systems, ODBC System DSN connections test successfully from the Windows ODBC utility, but fail to test successfully from the



Tivoli Common Reporting server when creating a data source. The following error message is displayed: UDA-SQL-0532 Data Source is not accessible.

### Causes

64-bit Windows contains both a 32 and 64-bit version of the ODBC utility:

- The 32-bit version of the Odbcad32.exe file located in the *system\_drive*\Windows\SysWow32 folder.
- The 64-bit version of the Odbcad32.exe file located in the *system\_drive*\Windows\SysWow64 folder.

64-bit applications only see the data sources defined from the 64-bit Windows ODBC utility. The same happens for 32-bit. The ODBC utility launched from **Administrative Tools** is the 64-bit version. Tivoli Common Reporting is a 32-bit application so it does not see the 64-bit ODBC data sources.

### Resolving the problem

Use the 32-bit version of the Windows ODBC utility to define the data sources. The 32-bit version of the Odbcad32.exe file is located in the *system\_drive*\Windows\SysWow32 folder.

For more information, see <http://support.microsoft.com/kb/942976>

## When starting Framework Manager you are prompted to supply your login details twice

### Symptoms

When you initiate Framework Manager, you are required to provide your login credentials. When you have done that, a Framework Manager login panel is displayed with the following text: Provide valid credentials. The user or password your provided is not valid.

### Causes

Framework Manager requires you to login twice because it does not support single sign-on.

### Resolving the problem

Ignore the message about invalid user or password and provide your login credentials again.

## Drill-through definitions in BIRT reports do not work

### Symptoms

From time to time, drill-throughs in BIRT might not be working.

### Resolving the problem

Restart the Tivoli Common Reporting server:

1. Stop the server by navigating to the following directory in the command-line interface:

- **Windows** `TCR_component_dir\bin`, and running the `stopTCRserver.bat` command.
  - **UNIX** **Linux** `TCR_component_dir/bin`, and running the `stopTCRserver.sh`
2. Start the server from the command-line interface by navigating to:
- **Windows** `TCR_component_dir\bin`, and running the `startTCRserver.bat` command.
  - **UNIX** **Linux** `TCR_component_dir/bin`, and running the `startTCRserver.sh`

## The Work with reports window is blank

### Symptoms

After restarting Tivoli Integrated Portal server and navigating to **Common Reporting**, the **Work with reports** window on the right is blank.

### Causes

This happens because when Tivoli Integrated Portal server is starting, all the applications installed in embedded WebSphere Application Server start as well, which takes some time.

### Resolving the problem

Wait for all the applications to load.

## An error UDA-SQL-0569 appears while starting Cognos server

### Symptoms

When starting Cognos server, the error: UDA-SQL-0569 - Unable to load the driver manager library (db2cli.dll) occurs. The server does not start.

### Causes

Cygwin is installed on Windows Server and the bin directory is added to the *PATH* variable.

### Diagnosing the problem

You can find the error in the log file or directly in the details of Cognos startup dialog, which is displayed by the Configuration tool (cogconfigw).

### Resolving the problem

Remove the Cygwin/bin entry from your system *PATH* and restart the system.

## An error occurs when starting Framework Manager

### Symptoms

An error BME-EX-0047 Unable to read preferences for the requested.. appears when opening or creating a project in Framework Manager and Framework Manager no longer works properly.

## Resolving the problem

Overwrite the `bmt.ini` file that you can find in the configuration directory. You can find a working copy of this file on other computer or from the backup.

## Logon fails in Turkish locale

### Symptoms

When installing Tivoli Common Reporting on an unsupported locale, errors related to database connection may appear.

### Causes

This problem occurs if you have the following configuration:

- You have DB2 installed, and when testing the connection from DB2 client, the connection test succeeds.
- You have created a native connection to Cognos Business Intelligence.
- The locale settings for your server machine is Turkish. You can verify this from shell by typing: `enx | grep LANG`. The system output for Turkish is:  
`LANG=tr_TR.UTF-8`.
- When testing the connection to Cognos, you get the error:  
UDA-SQL-0031 Unable to access the "testDataSourceConnection" database.  
UDA-SQL-0040 A syntax error was detected while parsing "{0}" in the file "{1}"  
UDA-SQL-0038 S syntax error was detected while parsing the line number "574" near  
"insert" in the file "opt/IBM/tivoli/TIP21Components/TCRComponent/Cognos/c8/./bin/./  
cogdmd2.ini

In this case, Cognos uses a meta SQL code, independent from the vendor, and the problem is in the conversion process from Cognos SQL to native SQL. At line 574 of the `cogdmd2.ini` file that maps each Cognos SQL command to native DB2 SQL the statement:

```
Insert="insert"
```

is wrongly translated because of the `toLowerCase()` and `toUpperCase()` functions of `String` class for the letters `I` and `i` that in Turkish have special meaning.

## Resolving the problem

Change the environment language to `en_US.UTF-8`.

## Error QE-DEF-0368: Unable to decrypt user name and password credentials from the content store

### Symptoms

User name and password cannot be decrypted from the Cognos Content Store. If you point Framework Manager to a new Tivoli Common Reporting installation, you may get the following error: QE-DEF-0368 Unable to decrypt user name and password credentials from the content store

### Causes

This happens when old credential keys are cached in Framework Manager

## Resolving the problem

1. Close Framework Manager together with its configuration user interface.
2. Navigate to the *FM\_install\_dir*\Configuration directory.
3. Back up the following directories: csk, encryptkeypair, signkeypair and delete them.
4. Open **Configuration**, click **Save**, and **Apply**.

## Unable to locate libcoguardor on Linux with Oracle Symptoms

If you are using Cognos on Linux with Oracle data source, and you try to test the Cognos connection from the user interface, you may get an error that Cognos is unable to locate the **libcoguardor** gateway.

### Resolving the problem

Cognos does not support 64-bit systems so if you are using a 64-bit system, and the Oracle client is a 64-bit version, install a 32-bit version of the Oracle client and see the following instructions to configure it Cognos Oracle connection problems.

#### Fast path:

1. Install 32-bit Oracle client.
2. Restart your computer.
3. Set the variable **COGNOS\_HOME** to point to the base directory of the Oracle client installation.
4. Configure the system library path to point to the Oracle client libraries (32-bit version). You must modify the following variables:
  - **Solaris** **LD\_LIBRARY\_PATH**
  - **Linux** **LD\_LIBRARY\_PATH**
  - **HP-UX** **SHLIB\_PATH**
  - **AIX** **LIBPATH**
  - **Windows** **PATH**

## Oracle environment variables for non-Oracle default user Symptoms

The variables **ORACLE\_HOME** and **LD\_LIBRARY\_PATH** necessary to correctly connect to an Oracle data source are set automatically by the */etc/profile.d/oracle.sh* script. This happens only for an Oracle user.

### Resolving the problem

If you are using non-Oracle user, set the **ORACLE\_HOME** and **LD\_LIBRARY\_PATH** manually or modify the *oracle.sh* script to set them for all users.

## No content displayed in Common Reporting portlet in Internet Explorer 7 Symptoms

The Common Reporting portlet is blank when opened in Internet Explorer 7 with default security settings.

## Resolving the problem

Customize the browser security settings to match the portlet demands.

To change the settings:

- In Internet Explorer 7 window, go to **Tools** → **Internet Options**, and on the **Security** tab in the **Security level for this zone** section, click **Custom level...**
- On the list, find the **Miscellaneous** category, and disable the **Access data sources across domains** option.
- Click **OK** to apply the changes.

## Charts in reports do not appear

### Symptoms

When rendering a report, charts do not appear and an error appears in the log files. The log file is in the directory *TCR\_install\_dir/profiles/TIPProfile/logs* in the form *YYYY MM DD hh mm ss.log*, where *YYYY* is the year, *MM* is the month, *DD* is the day, *hh* is the hour, *mm* is the minute, and *ss* is the second. The file reports the following error: May 19, 2010 2:09:43 PM

```
org.eclipse.birt.chart.exception.ChartException logThis WARNING: Exception  
org.eclipse.birt.chart.exception.ChartException: CREATE_EXTENSION_FAIL at  
org.eclipse.birt.chart.util.PluginSettings.getPluginXmlObject(PluginSettings.java:987)  
at org.eclipse.birt.chart.util.PluginSettings.getDisplayServer  
(PluginSettings.java:545)at  
org.eclipse.birt.chart.device.swing.SwingRendererImpl.init  
(SwingRendererImpl.java:130)at  
org.eclipse.birt.chart.device.swing.SwingRendererImpl.<init>  
(SwingRendererImpl.java:122)at  
org.eclipse.birt.chart.device.image.JavaxImageIOWriter.<init>  
(JavaxImageIOWriter.java:123)at  
org.eclipse.birt.chart.device.image.PngRendererImpl.<init>  
(PngRendererImpl.java:18).
```

The error appears on UNIX operating system.

### Causes

BIRT requires a graphical user interface API to render charts. This error appears only on UNIX-like systems, where a graphical user interface is an optional component. It does not appear on Windows, where the Win32 API always contains the graphical user interface API.

## Resolving the problem

Install the X system. Below is a list of packages that help for SUSE Linux (for other distributions, similar packages are available:

```
Linux SLES (9.156.46.78) [10:44] root /usr/lib # rpm -qa | grep xorg
```

- xorg-x11-server-6.9.0-50.58
- xorg-x11-fonts-75dpi-6.9.0-50.58
- xorg-x11-6.9.0-50.58

- xorg-x11-fonts-100dpi-6.9.0-50.58
- xorg-x11-Xvnc-6.9.0-50.58
- xorg-x11-driver-video-radeon-6.6.3-0.19
- xorg-x11-server-glx-6.9.0-50.58
- xorg-x11-libs-6.9.0-50.58
- xorg-x11-driver-video-nvidia-6.9.0-46.51
- xorg-x11-fonts-scalable-6.9.0-50.58
- xorg-x11-libs-32bit-6.9.0-50.58
- xorg-x11-Xnest-6.9.0-50.58
- xorg-x11-driver-video-6.9.0-46.51

## Cognos Configuration does not open

### Symptoms

Launching Cognos Configuration fails.

### Causes

This happens when the **JAVA\_HOME** environment variable points to a different Java than the Cognos Java.

### Resolving the problem

To resolve the problem, you can:

- Follow the steps in IBM Cognos information center to update your Java environment.
- Open the IBM Cognos Configuration by running:
  - **Windows** `TCR_component_dir\cognos\bin\tcr_cogconfig.bat`
  - **Linux** **UNIX** `TCR_component_dir/cognos/bin/tcr_cogconfig.sh`

The script sets the correct Java.

## Cannot open the sample overview report

### Symptoms

After installing Tivoli Common Reporting, when opening the sample overview report, an error message appears and the report does not open.

### Resolving the problem

To resolve the problem:

1. Locate the file `\WEB-INF\services\reportservice.xml`.
2. In the file, locate the section that refers to **async\_wait\_timeout\_ms**.
3. Modify the setting to increase the timeout from the default (30 seconds) to a larger setting, for example 90 seconds (90000 ms).
4. Save the file.
5. Restart the IBM Cognos 8 service.

## Error after running a sample overview report

### Symptoms

After running a sample overview report, an error with the ID UDA-SQL-0114 is displayed.

### **Causes**

This error is caused by a memory issue.

### **Resolving the problem**

See the IBM web page for most common solutions to this problem.

## **When trying to find users in user repository, an error appears**

### **Symptoms**

If you have configured a large user repository, and then you are trying to find users in this user repository, a NullPointerException appears as a result.

### **Resolving the problem**

To resolve the problem:

1. In the Tivoli Integrated Portal console, select **Launch** → **Cognos Administration** → **Configuration** → **Dispatchers and Services**.
2. Click the link to the dispatcher.
3. Click **Set Properties to the Content Manger Service**.
4. Select **Settings**.
5. In **Advanced Settings**, select **Edit to Environment**.
6. Enter CM.CMREQUEST\_PERFALARM\_THRESHOLD as the parameter.
7. Enter 3600000 as the value. 3600000 is an hour, you can increase this value if necessary.
8. Confirm your settings and restart the service.

## **Connection with the datasource fails**

### **Symptoms**

When testing the connection with the datasource, the DPR-ERR-2002 error message is displayed. The connection with the data source cannot be established.

### **Resolving the problem**

Remove the *hard\_drive\work\tools\windk\bin* directory from the **PATH** environment variable.

## **Cannot save IBM Cognos Configuration settings**

### **Symptoms**

When trying to save IBM Cognos Configuration settings, the following error message appears: The cryptographic information cannot be encrypted. Do you want to save the configuration in plain text?.

### **Resolving the problem**

Go to the **Environment** section and specify `http://localhost:16315/tarf/servlet/dispatch` for the **Gateway URI** and **Dispatcher URI** for external applications.

## The reporting engine fails to start with the SQLCODE=286 and SQLSTATE=42727

### Symptoms

After you have installed Tivoli Common Reporting and configured it to use DB2 as the content store database, the reporting engine does not start with SQLCODE=286 and SQLSTATE=42727.

### Causes

The DB2 user that was used for connecting to DB2 and creating all the databases is the only user that can access this table space. An error occurs when a different user is used to connect to DB2.

### Resolving the problem

Use the DB2 user name and password that you previously used to create the database. If you do not know this user name or password:

1. Run the following command to check if the user has access to the temporary user table space:

```
db2 connect to database_name user_id using password
db2 declare global temporary table t1 (c1 char(1)) with replace on commit preserver rows not logged
db2 disconnect database_name
```

If this command fails, it means that the user cannot access the temporary user table space in the database. In such case, move on to Step 2.

2. Run the following command to create a new temporary table space for the user:

```
db2 connect to database_name user_id using password
db2 create user temporary tablespace usertmp2 managed by system using ('usertmp2')
db2 disconnect database_name
```

For more information, consult DB2 information center.

## Report Studio does not work with Internet Explorer 8

### Symptoms

When trying to open Cognos 8.4.1 reports in Internet Explorer 8, the following error message appears:

CM-REQ-4158 The search path "/content/folder[@na#e='folder']/report[@name='report'] is invalid

### Causes

The Internet Explorer 8 XSS filter scrambles the Cognos search path rendering it invalid.

### Environment

All Windows operating systems.

### Resolving the problem



Apply the following changes to Internet Explorer 8:

1. Add Cognos URL to Trusted Sites list.
2. Modify the options of the Trusted Sites zone and set the "Enable XSS Filter" property to "Disable".
3. Restart the web browser.

**Note:** Turning off the browser's XSS filter has little or no risk when done only on the Trusted Sites zone. The IBM Cognos BI application has an internal firewall which protects it from XSS attacks, so the browser's filter is redundant.

## Reports in PDF format hang

### Symptoms

When opening a PDF report, the report hangs.

### Resolving the problem

The reason why the reports do not work properly is that they lack the images. Ensure that the report images are in the following folder: *TCR\_component\_dir\cognos\webcontent\tivoli*.

## Tivoli Common Reporting interface hangs

### Symptoms

After applying permissions in Tivoli Common Reporting and configuring it with a large user repository, the interface hangs, shows an error, or has a poor performance.

### Causes

This happens because all the configured users and groups are trying to be returned to the user interface at the same time. When browsing the user registry while applying permissions to actions in Tivoli Common Reporting, the default action is to display all groups. There is also an option to display all users. With large user repositories, this may result in poor performance, timeout, or an error with too many results returned.

### Resolving the problem

Configure Tivoli Common Reporting to not return all users and groups. Instead, allow the end user to search for users and groups:

1. Edit the *VMMprovider.properties* file located in *TIP\_install\_dir\profiles\TIPProfile\installedApps\TIPCell\IBM Cognos 8.ear\p2pd.war\WEB-INF\lib\VMMprovider.properties*
2. Uncomment the following two lines by removing the first character:  
#AllowAllGroupsSearch=false  
#AllowAllUsersSearch=false
3. Save and close the file.
4. Restart Tivoli Common Reporting server.



---

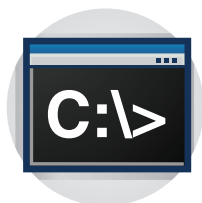
## Chapter 7. Reference



Reference information supports the tasks that you want to complete. It includes system messages.

---

### Commands



This section contains topics that provide information about command-line interface in IBM Tivoli Common Reporting .

The **trcmd** command provides access to the Tivoli Common Reporting command-line interface. Use this command to perform administrative tasks related to reports, report sets, and report designs.

The command-line interface is available only on the system where Tivoli Common Reporting is installed. To use the **trcmd** command, go to the `tipv2Components/TCRComponent/bin` subdirectory of the Tivoli Integrated Portal installation directory.

Each command function is accessed using a command flag, which must be the first command-line argument following **trcmd** (**trcmd.sh** on Linux and UNIX systems). Each command flag might have multiple flag sets; a flag set is a set of command-line arguments used together to perform a specific task. For example, different flag sets for **trcmd -import** are used to import reports.

To see syntax and usage information for any **trcmd** command flag, use the **-help** flag. For example, to see information about the **-list** command flag, use this command:

```
trcmd -list -help
```

The command reference topics in this section use special characters to define command syntax:

[ ]	Identifies an optional argument. Arguments not enclosed in brackets are required.
...	Indicates that you can specify multiple values for an argument.
	Indicates mutually exclusive arguments. Specify either the argument to the left of the separator or the argument to the right of the separator, but not both.
{ }	Encloses a set of mutually exclusive arguments separated by  .

**Tip:** The documentation in this section shows the command usage for a Windows system. On a Linux or UNIX system, use **trcmd.sh**.

## Command-line authentication

You must supply a valid user ID and password to use the Tivoli Common Reporting command-line interface.

For some operations, your user ID must have sufficient permissions to access the specified objects; for example, you might need access to a particular report or report set. For more information about authorization, see Constraining access to BIRT reports.

You can specify the user ID and password in the following way:

On the command line, use the **-user** *userID* **-password** *password* arguments, as in the following example:

```
trcmd -list -reports -user tipAdmin -password adminPassword
```

You can also use the optional **-namespace** parameter. If you do not provide it, default value will be used. Its default value depends on the installation scenario that you chose. For installation on a single computer, it is *VMMProvider*, and for distributed installation, it is *LDAP*.

## trcmd -access

The **-access** command flag for the **trcmd** command grants, removes or denies access for a particular user, group, or role to access a specified resource.

### Syntax

Use this syntax to change access to a resource:

```
trcmd -access {-grant | -remove | -deny} -permissions permission1 permission 2..  
{-entity cognosSearchPath | -reportSet cognosSearchPath} {-accessIdentity  
cognosSearchPath | -accessUser cognosSearchPath | -accessGroup  
cognosSearchPath][-help]
```

Use this syntax to cause a resource to inherit all its permissions from a parent object:

```
trcmd -access -inheritPermissions -entity cognosSearchPath
```

### Note:

1. Authentication with **-user** *userID* and **-password** *password* is required in all cases.
2. If you have configured more than one user repository, specify the **-namespace** value. By default, the **-namespace** parameter points to *VMMProvider*.

## Parameters

**-accessIdentity** *identityName*

The name of entity for which authorization is to be changed. It can be a user, group, or role.

**-accessGroup** *groupName*

The function of this flag is identical to the **-accessIdentity** flag. Its presence ensures compatibility with earlier versions of Tivoli Common Reporting.

**-accessUser** *userName*

The function of this flag is identical to the **-accessIdentity** flag. Its presence ensures compatibility with earlier versions of Tivoli Common Reporting.

**-deny**

Prevents a user or group from accessing the specified resource. If a user belongs to more than one group, and any of these groups has been denied access to a resource, the user will not be able to access this resource.

**-entity** *cognosSearchPath*

Specifies the Cognos search path to a resource.

**-grant**

Adds an authorization permission for the specified user, role, or group to access the specified resources. If a user has multiple roles and belongs to multiple groups, it is enough to grant permission to any of these objects.

**-help**

Displays syntax and usage information of a command flag.

**-permissions** *permission1 permission 2..*

Specifies the type of permission that you want to grant to a user or group. You can grant multiple permissions at the same time. They must be separated by space. Possible values are:

- **read**
- **write**
- **execute**
- **setPolicy**
- **traverse**

**-remove**

Removes **deny** on a permission, as well as an authorization role for the specified user or group to access the specified resources. However, if a user belongs to more than one group, and any of these groups has access to a specified resource, the user will still be able to access this resource.

## Examples

- This example grants user CAMID('VMMPProvider:tester') setPolicy and write permissions to the object /content/package[@name='Common Reporting']/report[@name='Reporting Overview']:

```
trcmd.bat -user tipadmin -password tipadmin -access -grant
-permissions write setPolicy
-entity "/content/package[@name='Common Reporting']/"
report[@name='Reporting Overview']"
-accessIdentity "CAMID('VMMPProvider:tester')"
```

- This example lists authorizations that the user tipadmin has to the object /content/package[@name='Package1']:

```
trcmd.bat -list -authorizations -entity "/content/package[@name='Package1']"
-user tipadmin -password tipadmin
```

## trcmd -convert

The **-convert** command flag for the **trcmd** command allows you to convert existing BIRT reports into Cognos draft reports. A draft report includes some elements of

BIRT reports, such as layout and style, and is used as a basis for the creation of a fully-fledged Cognos report. It cannot be used for Cognos reports.

## Syntax

```
trcmd -user userID -password password -namespace authentication namespace  
-convert -report cognosSearchPath [-parameters p1 p2 p3..] imagesDir  
images_directory [-help]
```

### Note:

1. Authentication with **-user** *userID* and **-password** *password* is required.
2. If you have configured more than one user repository, specify **-namespace** value. By default, **-namespace** points to VMMProvider.
3. Before converting a BIRT report, ensure that it has properly configured data sources and that it can be run without errors.

**Restriction:** After the conversion, a report may not run properly. This is a normal situation. In such case, complete the report conversion in Report Studio to be able to run it.

## Arguments

**-imagesDir** *images\_directory*

Specifies the location where the images generated by a BIRT report will be copied during the conversion. After the conversion, you will need to copy the images to the right folders. This parameter is optional for single-box installation and when you run this command on the computer where the user interface is installed. If you run this command on the computer where the reporting engine is installed, this parameter is obligatory.

**Important:** If you are running this command on the computer with the user interface, you must copy the images to the computer where the reporting engine is installed if you want them to display in PDF reports.

**-parameters** *p1 p2 p3..*

A list of parameter values used for running the report, separated by spaces. These values override any default values specified in the report or report design. Each parameter value must be specified using the following format:  
param=value

If the value contains spaces, enclose the parameter in double quotation marks:  
"param=spaced value"

Each parameter must correspond to a valid parameter specified in the report design. Note that the multivalued parameters are supported, for example:

```
-parameters color=blue color=red
```

There are two optional parameters available. These are the following:

**-locale**

Specifies the language of the report, for example **-locale** *en* for English. To see the list of ISO codes for languages, or to search by code or language, go to <http://www.loc.gov/standards/iso639-2/langhome.html>. Find the 2-character ISO 639-1 code for your language.

**-validateParams** *true*

When set to its default value true, enables checking of default report

parameters. When set to false, requires you to specify the parameters that a report will use in detail, for example date format.

**-report** *cognosSearchPath*

The unique search path of the report you want to run.

**Restriction:** The report chosen for conversion has to be a BIRT report. If you choose a Cognos report, the conversion will be aborted and you will receive an error message.

**-help**

Displays syntax and usage information of a command flag.

There is an optional parameter available. This is the following:

**-package** *cognosSearchPath*

This parameter allows you to choose the location where the converted report is saved, different from the original one. The package name specified must exist in Cognos.

## Examples

- This example converts a BIRT report named "IT Finances":

```
trcmd -user tipadmin -password your password -namespace VMMPProvider -convert -report /content/p
```

- This example converts a BIRT report named "IT Finances" and places it in a package named "Business Plan":

```
trcmd -user tipadmin -password your password -namespace VMMPProvider  
-convert -report content/package[@name='Sales and Retailers']/  
report[@name='IT Finances']  
-package /content/package[@name='Business Plan']
```

## trcmd -datasource

Use the **-datasource** command flag for the **trcmd** command to add a data source or test data source connectivity.

**Important:** This command can be used for Cognos data sources only.

### Syntax

Use this syntax to add a new data source:

```
trcmd -datasource -add data_source_name [-connectionName connection_name]  
[-connectionString connection_string] [-dbType DB2 | ORACLE | ODBC | XML  
-dbName database_name[-collation collation_sequence]] [-signonName signon_name]  
[-dbLogin database_login -dbPassword database_password] [-users  
namespace1:username1 namespace2:username2] [-groups namespace1:groupname1  
namespace2:groupname2] [-roles namespace1:rolename1 namespace2:rolename2] [-force]  
[-hidden] [-help]
```

Use this syntax to test the data source connection with the database:

```
trcmd -datasource -test data_source_name [-connectionName connection_name]  
[-signonName signon_name] [-dbLogin database_login -dbPassword  
database_password]
```

**Tip:** The **-datasource** command is used for creating a new data source connection. If you want to modify an existing data source connection, you can do this with the **-force** flag using the existing connection's name. To modify the data source:

1. Obtain the name of the data source that you want to change.
2. Run the **-datasource** as if you were creating a new data source and use the **-force** flag. The flag modifies the data source by overwriting the existing data source.

**Note:**

1. Authentication with **-user** *userID* and **-password** *password* is required
2. If you have configured more than one user repository, specify the **-namespace** value. By default, **-namespace** points to VMMPProvider.

**Restriction:** Testing XML data sources is not supported by the command line.

## Arguments

**-add** *data\_source\_name*

Adds a new data source. When used with **-force**, overrides the existing data source.

**-connectionName** *connection\_name*

The name of the connection between the data source and the database. If you do not specify it when adding a new data source, the data source name will be used as connection name. If you do not specify it when testing the database connection with the data source, the first found connection will be used.

**-connection string** *connection\_string*

Specifies the parameters of the database connection. If you specify **-dbType**, **-connectionString** must contain database specific connection string. If you do not specify **-dbType**, **-connectionString** must contain fully qualified Cognos connection string.

**-collation** *collation\_sequence*

Specifies the collation sequence.

**-dbType**

Specifies the type of the database such as DB2, Oracle, ODBC, or XML. If you specify a database other than one of these, you must provide the exact Cognos connection string.

**-dbName** *database\_name*

Specifies the name of the database.

**-dbLogin** *database\_login*

The database login needed to access the database.

**-dbPassword** *database\_password*

Specifies the password needed to access the database.

**-force**

Overrides the data source, connection or sign-on if it already exists.

**-groups** *namespace1:groupname1 namespace2:groupname2*

Specifies the names of groups that can access the sign-on. If you omit *namespace*, the default Cognos namespace will be used.

**-hidden**

Hides the data source from other users.

**-help**

Displays syntax and usage information of a command flag.



**-roles** *namespace1:rolename1 namespace2:rolename2*

Specifies the names of roles that can access the sign-on. If you omit *namespace*, the default Cognos namespace will be used.

**-signonName** *signon\_name*

When used with the **-add** parameter, it specifies the sign-on name needed to access the database. If you do not use **-signonName**, *database\_login* name will be used as the sign-on name.

When used with the **-test** parameter, it specifies the sign-on name needed to access the tested database. If you do not specify it, the **-dbLogin** and **-dbPassword** parameters will be used as the sign-on name. If you omit **-signonName**, **-dbLogin**, and **-dbPassword**, the first sign-on on the list will be used to test the data source.

**-test** *data\_source\_name*

Tests the connection between the data source and the database.

**-users** *namespace1:username1 namespace2:username2*

Specifies users that can access the sign-on. If you omit *namespace*, the default Cognos namespace will be used.

## Example

This example adds a DB2 data source named "ITM" that can be accessed by "tipadmin" users belonging to a group named "Everyone":

```
trcmd.bat -user tipadmin -password XXX -dataSource -add ITM
-dbType DB2 -connectionName TDW -dbname ITM
-dblogin db2inst1 -dbpassword XXX -groups Everyone
-users VMMPProvider:tipadmin
```

This example tests the database connection of a data source named "ITM":

```
trcmd.bat -user tipadmin -password XXX -dataSource
-test ITM -dbLogin otherdbuser -dbPassword XXXX
```

## trcmd -delete

The **-delete** command flag for the **trcmd** command deletes an arbitrary object in Content Store based on its search path. You can use this command for both Cognos and BIRT objects.

## Syntax

Use this syntax to delete an object from Content Store:

**trcmd -delete -searchPath** *cognosSearchPath* [**-recursive**] [**-force**] [**-help**]

### Note:

1. Authentication with **-user** *userID* and **-password** *password* is required in all cases.
2. If you have configured more than one user repository, specify the **-namespace** value. By default, the **-namespace** parameter points to VMMPProvider.

## Arguments

### **-force**

Forces deletion of an object in case of problems by specifying whether Content Manager can consider the setPolicy permissions of a user when deciding if the user can delete a selected object. If used, the selected object will be deleted if

the current user has either write or setPolicy permission for the selected object, the parent of the selected object, and every descendant of the selected object.

If not used, the selected object will be deleted if the current user has write permission for the selected object, the parent of the selected object, and every descendant of the selected object.

**-help**

Displays syntax and usage information of a command flag.

**-recursive**

Deletes an object together with its child objects.

**-searchPath** *cognosSearchPath*

The search path to the object that you want to delete.

## Examples

This example deletes the "Test Reports" folder and all its subfolders and reports.

```
tcrmd.bat -user tipadmin -password tipadmin -delete  
-searchPath "/content/package[@name='Tivoli Products']/folder[@name='Test Reports']"  
-recursive
```

## tcrmd -distribute

The **-distribute** command flag for the **tcrmd** command distributes a formatted report to a specified location on the server file system. You can use this command for both BIRT and Cognos reports.

### Syntax

```
tcrmd -distribute -report cognosSearchPath -location publishLocation [-parameters p1  
p2 p3 ...] [-format format] [-locale locale] [-imageDir imagePath] [-baseImageUrl  
URL] [-help]
```

**Note:**

1. Authentication with **-user** *userID* and **-password** *password* is required.
2. If you have configured more than one user repository, specify the **-namespace** value. By default, **-namespace** points to VMMPProvider

### Arguments

**-location** *publishLocation*

The fully qualified path to the directory where the formatted report is to be saved.

**-help**

Displays syntax and usage information of a command flag.

**-report** *report*

The unique name of the report you want to distribute. Only the specified report is distributed (drill-through reports are not included).

The following optional parameters are available:

**-baseImageUrl**

The base URL to use in references to images in an HTML formatted report. This URL should reflect the location of the image files at the time the report is viewed. The default value is *./* (images are read from the same directory as the HTML file).

- **format** *format*

Specifies output format, for example: **-format HTML**. It is possible to specify multiple formats at one time, for example **-format PDF HTML**. If this parameter is not used, the output format of the report is PDF. The supported formats are: PDF, HTML, CSV, XML, XLS.

-**imageDir** *imagePath*

The location to use when saving image files used by an HTML formatted report. If you do not specify an image directory, images are saved in the same location as the distributed report.

**Note:** Each time a report is distributed to the file system, new image files are generated with unique file names. Existing image files in the target location are not overwritten. You must manually delete files generated by previous report runs when they are no longer needed.

-**locale** *locale*

Specifies the language of the report, for example **-locale en** for English. To see the list of ISO codes for languages, or to search by code or language, go to <http://www.loc.gov/standards/iso639-2/langhome.html> and find the two-character ISO 639-1 code for your language.

-**parameters** *p1 p2 p3 ...*

A list of parameter values used for producing the distributed report, separated by spaces. These values override any default values specified in the report or report design. Each parameter value must be specified using the following format:

*param=value*

If the value contains spaces, enclose the parameter in double quotation marks:

*"param=spaced value"*

Each parameter must correspond to a valid parameter specified in the report design.

## Examples

- This example distributes a formatted PDF version of the DBAvail report, specifying several parameter values and the output location for the PDF file.

```
trcmd -distribute -report DBAvail -format PDF -location C:\tmp\reports\Q3Avail.pdf  
-parameters quarter=3 type=NTServers
```

## trcmd -import

The **-import** command flag for the **trcmd** command imports BIRT and Cognos report packages and report designs. The type of a package is recognized automatically. This command can be used for single-box installation and on the reporting engine. It is not supported for other scenarios.

## Syntax

Use this syntax to import a report package:

```
trcmd -import -bulk pkgFile [-reportSetBase rsBase] [-resourceBase resourceBase]  
[-designBase designBase] [-help]
```

Use this syntax to import a report design and also create a new report associated with the design:

**trcmd -import -design** *designPath* [-**resourceDir** *resourcePath*] -**reportSetBase** *rsBase*

During Cognos reports import, the **-resourceBase**, **-designBase**, and **-resourceDir** parameters are ignored.

You can import a single Cognos report from an .xml file using the **-design** parameter.

**Note:**

1. Authentication by **-user** *userID* and **-password** *password* is required in all cases.
2. If you have configured more than one user repository, specify the **-namespace** value. By default, **-namespace** points to VMMProvider.

## Arguments

**-bulk** *pkgFile*

The local path and file name (including .zip extension) of the report package file to be imported.

**-design** *designPath*

The local path of the design file to be imported.

**-help**

Displays syntax and usage information of a command flag.

The following parameters are optional:

**-reportSetBase** *rsBase*

A search path to the package where a report is to be imported.

**-resourceBase** *resourceBase*

An optional base name for any resource directories imported from a report package. The base name for a resource directory is used as the name of the top-level parent directory for the resources in the package. Use this option to avoid naming conflicts when importing resources in a package that have the same names and locations as existing resources in the data store.

**-designBase** *designBase*

An optional base name for any report designs imported from a report package. The base name for a report design is used as the top-level location for the designs in the package. Use this option to avoid naming conflicts when importing report designs in a package that have the same names and locations as existing designs in the data store.

**-resourceDir** *resourcePath*

The path in the data store for imported resources.

## Examples

- This example imports a BIRT package named `avail_skills.zip` with its resource directory imported from `C:\download\sth\report`.

```
trcmd -import -bulk C:\download\sth\report\avail_skills.zip
-reportSetBase myReportSetBase -resourceBase myResourceBase
-designBase myDesignBase -user tipadmin -password admin
```

## trcmd -list

The **-list** command flag for the **trcmd** command lists available items in the data store or shows detailed information about a specific item. You can use it for both BIRT and Cognos reports.

## Syntax

Use this syntax to list all available folders and packages, also the hidden ones:

**trcmd -list {-reportSets [-showHidden] [-help]}**

Use this syntax to list reports, folders, or packages associated with a specific folder or a package:

**trcmd -list -reportSet *cognosSearchPath* {-reportSets | -reports} [-help]**

Use this syntax to list all available reports:

**trcmd -list -reports [-help]**

Use this syntax to display detailed information about a specific report:

**trcmd -list -report *cognosSearchPath* [-help]**

Use this syntax to display authorizations to reports or packages for specified users.

**trcmd -list -authorizations -entity *cognosSearchPath* [-help]**

Use this syntax to list the data sources defined in Content Store:

**trcmd -list -dataSources [-help]**

Use this syntax to list the connections defined in the specified data source:

**trcmd -list -connections *cognosSearchPathOrDataSourceName* [-help]**

### Note:

1. Authentication with **-user** *userID* and **-password** *password* is required in all cases.
2. If you have configured more than one user repository, specify the **-namespace** value. By default, **-namespace** points to VMMPProvider.

## Arguments

### **-authorizations**

Lists authorizations to reports, packages, and folders for specified users.

### **-connections** *cognosSearchPathOrDataSourceName*

Lists connections defined for the specified data source. You can use the Cognos search path or data source name.

### **-dataSources**

Lists data sources defined in Content Store.

### **-entity** *cognosSearchPath*

The search path of an object in the Cognos Content Store.

### **-help**

Displays syntax and usage information of a command flag.

### **-report** *cognosSearchPath*

The Cognos search path of an existing report. The search path of each report can be found in the web interface in **Properties** view.

**-reports**

Lists available reports. When used with the **-reportSet** command flag, this argument displays the reports associated with the specified folder or package.

**-reportSet** *cognosSearchPath*

The search path of an existing folder or package.

**-reportSets**

Lists available folders and packages. When used with the **-reportSet** flag, this argument displays the folders and packages that are children of the specified folder or package.

**-showHidden**

Use this flag to see hidden reports and report sets, which by default are not shown in command line.

**Examples**

- This example lists all available reports.

```
trcmd.sh -username tipadmin -password tipadmin -list -reports
```

- This example lists all child folders or packages of the Monitoring folder.

```
trcmd.sh -username tipadmin -password tipadmin -list
-reportSet "/content/package[@name='Sales and Retailers']/"
folder[@name='Monitoring']"
-reportSets
```

- This example displays detailed information about the IT Finances report.

```
trcmd.sh -username tipadmin -password tipadmin -list
-report "/content/package[@name='Sales and Retailers']/"
folder[@name='Documentation Reports']/report[@name='IT Finances']"
```

- This example lists authorization to the Reporting Overview report for user tipadmin.

```
trcmd.sh -user tipadmin -password tipadmin -list -authorizations
-entity "/content/package[@name='Common Reporting']/report[@name='Reporting Overview']"
```

**trcmd -modify**

The **-modify** command flag for the **trcmd** command allows you to configure Tivoli Common Reporting with your data source information, so that the reports can use external data sources. Use this command for BIRT reports only.

**Syntax**

Use this syntax to modify data sources associated with one or more reports:

```
trcmd -modify -dataSources -reports [-reportName cognosSearchPath]
[-displayName displayNameQuery] [-dataSource p1 p2 p3] [-caseSensitive]
-setDatasource p1 p2 p3 [-help]
```

**Tip:** To get the unique report name used in this command, run the “trcmd -list” on page 134 command. If reports from packages use a common library for the data source definition, you need to only run the command against one report.

**Note:**

1. Authentication with **-user** *userID* and **-password** *password* is required.
2. If you have configured more than one user repository, specify the **-namespace** value. By default, **-namespace** points to VMMPProvider.

## Arguments

### **-caseSensitive**

Specifies that case is respected when matching the search query.

### **-dataSource** *p1 p2 p3 ...*

A list of data source properties separated by spaces. Use this argument to restrict the search results to include only data sources whose properties match any of the specified values. Each property value must be specified using the following format:

*property=value*

If the value contains spaces, use double quotation marks:

*"property=spaced value"*

Each property must be one of the following:

- name
- displayName
- comments
- odaDriverClass
- odaURL
- odaUser
- odaPassword
- odaJndiName

### **-dataSources**

Modifies the properties of data sources matching the specified search criteria.

### **-displayName**

Specifies the report or report set display name query to use when searching for matching reports or report sets.

### **-help**

Displays syntax and usage information of a command flag.

### **-reportName** *cognosSearchPath*

Specifies the search path to use when searching for matching report sets.

### **-reports**

Specifies that you want to modify the properties of the data sources associated with reports that match the specified search criteria.

### **-setDataSource** *p1 p2 p3 ...*

A list of new data source property values separated by spaces. Each property value must be specified using the following format:

*property=value*

If the value contains spaces, enclose the property in double quotation marks:

*"property=spaced value"*

Each property must be one of the following:

- name
- displayName
- comments
- odaDriverClass
- odaURL
- odaUser
- odaPassword
- odaJndiName

## Examples

This example changes the `odaDriverClass`, `odaURL`, `odaUser`, and `odaPassword` properties of the data source in the ITM: Top Resources by Utilization Summary report:

```
./trcmd.sh -user tipadmin -password tipadmin -modify -datasources -reports -reportname  
"/content/package[@name='Tivoli Products']/folder[@name='ITM 6.2 Reports']/  
folder[@name='Utilization']/  
report[@name='ITM: Top Resources by Utilization Summary']"  
-setdatasource odaDriverClass=com.ibm.db2.jcc.DB2Driver  
"odaURL=jdbc:db2://9.167.29.78:60000/WAREHOUS:currentSchema=ITMUSER;"  
odaUser=db2inst1 odaPassword=tcrl23test
```

**/content/package[@name='Tivoli Products']/folder[@name='ITM 6.2 Reports']/folder[@name='Utilization']/report[@name='ITM: Top Resources by Utilization Summary']"**

is the report that will be used as the base for changing the JDBC information. The report name is enclosed in double quotation marks because it contains spaces.

### **-setdatasource**

is the keyword specifying which parameters are to be changed in the JDBC datasource. All the parameters are in the NAME=VALUE format. Specify your own parameters.

## What to do next

You can now verify if the JDBC datasource was changed correctly using the list command. The example below lists the properties of the ITM: Top Resources by Memory Utilization report::

```
./trcmd.sh -user tipadmin -password tipadmin -list -report "/content/package[@name='Tivoli Products']
```

Report information is displayed including the properties that you changed.

## trcmd -run

The **-run** command flag for the **trcmd** command runs a report and saves the result as an output version. You can use this command for BIRT and Cognos reports.

### Syntax

```
trcmd -run -report cognosSearchPath [-format format] [-locale locale] [-parameters p1  
p2 p3 ...] [-validateParams true] [-help]
```

#### Note:

1. Authentication with **-user** *userID* and **-password** *password* is required.
2. If you have configured more than one user repository, specify the **-namespace** value. By default, **-namespace** points to VMMPProvider.
3. To run BIRT reports, use Cognos search path as a report name.

## Arguments

### **-report** *cognosSearchPath*

The unique search path of the report you want to run.

Note that the search path for every Cognos report can be found in Cognos UI. For more information, see “Checking the search path of a report” on page 105.



**-parameters** *p1 p2 p3 ...*

A list of parameter values used for running the report, separated by spaces. These values override any default values specified in the report or report design. Each parameter value must be specified using the following format:  
*param=value*

If the value contains spaces, enclose the parameter in double quotation marks:  
*"param=spaced value"*

Each parameter must correspond to a valid parameter specified in the report design.

Note that multivalued parameters are supported, for example:

**-parameters** *color=blue color=red*

There are four optional parameters available. These are the following:

**-format** *format*

Specifies output format, for example: **-format** *HTML*. It is possible to specify multiple formats at one time, for example: **-format** *PDF HTML*. If **-format** is not used, the output format is PDF. The supported formats are: PDF, HTML, CSV, XML, XLS

**-locale**

Specifies the language of the report, for example: **-locale** *en* for English. To see the list of ISO codes for languages, or to search by code or language, go to [www.loc.gov/standards/iso639-2/langhome.html](http://www.loc.gov/standards/iso639-2/langhome.html). Find the 2-character ISO 639-1 code for your language.

**-help**

Displays syntax and usage information of a command flag.

**-validateParams** *true*

When set to its default value *true*, enables checking of default report parameters. When set to *false*, requires you to specify the parameters that a report will use in detail, for example date format.

## Examples

- This example creates a snapshot of the DBAvail report, specifying several parameter values.

```
trcmd -run -report "/content/package[@name='package.zip']/report[@name='DBAvail']" -parameters
```

**Note:** On UNIX-like operating systems, it is essential that you add double quotation marks for the parameters, even though there is no space in them.

## trcmd -version

The **-version** command flag for the **trcmd** command shows current version and build information for Tivoli Common Reporting.

## Syntax

**trcmd -version**

## Arguments

This command flag has no arguments.



---

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# Index

## A

- application server
  - FIPS enablement 86
- architecture
  - overview 1

## C

- clustered environment
  - configuring 69
- Common Reporting
  - ad-hoc reports
    - performing 102
  - overview 91
  - report packages
    - importing 101
  - reports
    - Web-based authoring 103
    - working 99
  - sample report 100
  - running 99
  - troubleshooting 114
- configuration
  - clustered environment 69
  - database 82
    - DB2 82
    - MS SQL 83
    - Oracle 84
  - Framework Manager connection 81
  - LDAP 62
    - Cognos-based Tivoli Common Reporting engine 63
    - Tivoli Common Reporting Server 62
  - overview 61
  - security 88, 89
- console mode installation 20
- console mode uninstallation 41

## D

- database
  - configuring 82
- database configuration 82
- DB2 database
  - configuring 82
- DB2 database configuration 82
- distributed environment installation 19

## E

- existing Cognos infrastructure
  - installation 33

## F

- FIPS support 86
- Framework Manager connection
  - configuration 81

## I

- IBM Tivoli Common Reporting
  - description 1
- installation
  - console mode 20
  - distributed environment 19
  - existing Cognos infrastructure 33
  - preparing 14
    - environment 16
    - installation media 16
    - reading release notes 14
  - required
    - disk space 16
  - response file 23
  - scenarios 12
  - silent mode 22
  - single-computer 17
  - troubleshooting 108
  - verifying 35
  - wizard 17
- installing
  - overview 9
- installing using installation wizard 17

## L

- LDAP
  - configuring 62
    - Cognos-based Tivoli Common Reporting engine 63
    - Tivoli Common Reporting Server 62
- LDAP configuration 62
  - Cognos-based Tivoli Common Reporting engine 63
  - Tivoli Common Reporting Server 62

## M

- manual uninstallation 42
- MS SQL database
  - configuring 83
- MS SQL database configuration 83

## O

- on-line resources 5
- Oracle database
  - configuring 84
- Oracle database configuration 84

## P

- preparing to installation 14

## R

- reporting
  - getting started 5
- reporting interface
  - logging in 6
    - Tivoli Integrated Portal
- response file installation 23

## S

- security
  - configuring 88, 89
- security configuration 88, 89
- silent installation using response file 23
- silent mode installation 22
- silent mode uninstallation 41
- single sign-on 7
- single-computer installation 17
- SSO 7

## T

- technical overview 1
- troubleshooting
  - using log files 107
- troubleshooting Common Reporting 114
- troubleshooting installation 108

## U

- uninstallation
  - console mode 41
  - manual 42
  - overview 40
  - silent mode 41
  - uninstallation wizard 40
  - verifying 44

## V

- verifying installation 35
- verifying uninstallation 44

## W

- Web resources 5
- wizard uninstallation 40







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